

FINAL FINDING OF NO SIGNIFICANT IMPACT

FOR

CONSTRUCTION OF A TEMPORARY LODGING FACILITY ENVIRONMENTAL ASSESSMENT ON EGLIN AIR FORCE BASE, FLORIDA

**Contract No. W91278-09-D-0099
Task Order No. 0015**

This finding, and the analysis upon which it is based, was prepared pursuant to the President's Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) and its implementing regulations as promulgated at 40 Code of Federal Regulations (CFR) Part 1500 (40 CFR 1500-1508) plus:

- US Air Force *Environmental Impact Analysis Process* as promulgated at 32 CFR Part 989.

The Department of the Air Force has conducted an Environmental Assessment (EA) of the potential environmental consequences associated with the Construction of a Temporary Lodging Facility (TLF), Eglin Air Force Base, Florida. That March 2012 EA is hereby incorporated by reference into this finding.

PURPOSE AND NEED (EA Section 1.3, page 1-1)

The purpose of this action is to update TLFs at Eglin AFB in order to accommodate the increase of permanent change of station (PCS) demand associated with an upward population trend in the next several years. In addition, several of the existing TLFs at Eglin AFB are in poor condition and do not meet Air Force Standards for TLF accommodations. Thus, there is a need to ensure adequate TLFs at Eglin AFB to meet current and future demand.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Alternative A: No Action (EA Section 2.2.1, page 2-2)

Under the No Action Alternative, the TLF would not be constructed. The existing TLFs at Eglin AFB would remain at the current location and in its current substandard state.

This alternative is not a viable alternative since the current TLFs at Eglin AFB do not meet U.S. Air Force quality standards and remain inadequate to support the quality of life needs of existing and future TLF demand due to the age and poor condition of some of the existing TLF units.

Alternative B: Hatchee Rd. and Foster Dr., Renovate Ten Waterside Units (Proposed Action/Preferred Alternative) (EA Section 2.2.2, page 2-3)

The Air Force proposes to construct a TLF consisting of 32 units on approximately 435,600 square feet (10 acres), including setback and open space requirements. The Preferred Alternative

Report Documentation Page			<i>Form Approved OMB No. 0704-0188</i>	
<p>Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p>				
1. REPORT DATE 01 MAR 2012	2. REPORT TYPE	3. DATES COVERED 00-00-2012 to 00-00-2012		
4. TITLE AND SUBTITLE Final Environmental Assessment for the Construction of a Temporary Lodging Facility Eglin Air Force Base, FL			5a. CONTRACT NUMBER	
			5b. GRANT NUMBER	
			5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)			5d. PROJECT NUMBER	
			5e. TASK NUMBER	
			5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Science Applications International Corporation (SAIC),1140 Eglin Parkway,Shalimar,FL,32579			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)	
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited				
13. SUPPLEMENTARY NOTES				
14. ABSTRACT				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 89
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	19a. NAME OF RESPONSIBLE PERSON	

location for the TLF is the corner of Hatchee Rd. and Foster Dr. at Eglin AFB. Additionally, ten of the units at the existing Waterside TLF at Eglin AFB would be renovated to meet the 42 unit demand. The primary facility will consist of the construction of a building or series of buildings covering approximately 45,000 square feet (1 acre) and a parking lot area covering approximately 32,670 square feet (0.75 acre). Supporting facilities would include utilities; parking lot lighting; walks, curbs and gutters; storm drainage; site improvements; antiterrorism (AT) protection measures; and building information systems. For this EA, an overall project area of 10 acres that may be disturbed by construction activities was analyzed.

Alternative C: Memorial Trail and Hatchee Rd., Renovated Waterside TLF (EA Section 2.2.3, page 2-3)

Under Alternative C, the action would be the same as described under Alternative B. However, the location of Alternative C would differ. The location of Alternative C is at the north corner of Memorial Trail and Hatchee Rd.

ENVIRONMENTAL IMPACTS

Analysis was conducted to determine the potential impacts to the human and natural environment resulting from Alternative A: No Action, Alternative B: Hatchee Rd. and Foster Dr., Renovate Ten Waterside Units (Proposed Action/Preferred Alternative), and Alternative C: Memorial Trail and Hatchee Rd, Renovate Waterside TLF. No significant impacts to resources have been identified (EA Chapter 3, pages 3-1 to 3-31). In addition, no cumulative impacts caused by implementation of the Proposed Action when combined with other past, present, and reasonably foreseeable actions occurring at Eglin AFB, main base (EA Chapter 4, pages 4-1 to 4-3).

Air Quality (EA Section 3.1.3, pages 3-4 to 3-5) – Impacts to air quality are not expected to be adverse under any of the alternatives. The emission concentrations are within federal standards and would not cause adverse effects to the regional air quality. Any construction related emissions would be temporary and minimal.

Biological Resources (EA Section 3.2.3, pages 3-6 to 3-7) – There would be no significant impacts to biological resources under any of the alternatives. Habitat loss would be minimal, and the site associated with each alternative occurs within the context of the developed base housing area. Removal of trees, including longleaf pine, would be minimized to the degree feasible. No sensitive species have been documented at any of the alternative sites.

Hazardous Materials/Waste (EA Section 3.3.3, pages 3-9 to 3-11) – The construction of a new TLF at Eglin AFB has the potential to generate Hazardous materials (HAZMAT) above baseline conditions (the No Action Alternative). Any HAZMAT would be processed in accordance with the Hazardous Waste Management Plan (HWMP). During construction, 168.6 tons of construction debris would be produced, which is manageable under the waste management program. There would be no impact to the Environmental Restoration Program.

Noise (EA Section 3.4.3, pages 3-16 to 3-17) – No adverse impacts from construction noise are expected under any of the alternatives. Under Alternative B, the site location for the TLF would be in a 70 to 74 Day/Night Average Sound Level (DNL); while the site location for Alternative C

would fall under the 65 to 70 DNL aircraft noise contours. Both Alternative B and C would require that noise level reduction should be incorporated into the building design.

Safety (EA Section 3.5.3, pages 3-19 to 3-20) – There are no adverse effects to safety, including fire and security response, Anti-Terrorism/Force Protection (AT/FP) and job site safety under any of the alternatives.

Socioeconomics (EA Section 3.6.3, pages 3-21 to 3-22) – Under Alternative A: No Action Alternative, the construction of a new TLF would not be implemented and therefore, there would not be an adequate supply of temporary lodging units that meet U.S. Air Force quality standards and future demand. Thus, military personnel, retirees, and other users would be required to find temporary lodging facilities off-base, which could potentially result in adverse impacts for the Eglin AFB community and personnel. Under Alternative B and Alternative C, the construction of a new TLF would result in beneficial impacts to Eglin AFB community and personnel from the available and adequate supply of TLF units on base. During the construction phase there would be a temporary and minor benefit to socioeconomic resources from the use of local labor and supplies. Benefits associated with construction activities are anticipated to be minor and temporary lasting only for the duration of the construction phase.

Utilities (EA Section 3.7.3, pages 3-25 to 3-27) – There would be no significant adverse impact to utilities under any of the alternatives. Existing utilities are readily available and intact at each alternative location. In addition, potable water and wastewater disposal on Eglin AFB are operating under capacity. The additional usage associated with the construction of a new TLF is not anticipated to result in levels exceeding capacity.

Water Resources (EA Section 3.8.3, page 3-31) – No significant impacts to water resources are expected under any of the alternatives. Construction of a TLF would not affect surface waters or wetlands because of the distance from the proposed site under each alternative to the water resource. Adherence to Florida Department of Environmental Protection (FDEP) National Pollutant Discharge Elimination System (NPDES) permit requirements for construction would minimize any potential impacts to water resources.

REGULATIONS, PLANS, AND PERMITS (EA Section 5.1, page 5-1)

- Coastal Zone Management Act (CZMA) Consistency Determination (Appendix B, Coastal Zone Management Act Consistency Determination)
- Stormwater Pollution Prevention Plan (SWPPP)
- Florida Department of Environmental Protection (FDEP) National Pollutant Discharge Elimination System (NPDES) Permit

MANAGEMENT ACTIONS (EA Section 5.2, pages 5-1 to 5-2)

The proponent is responsible for implementation of the following management actions:

Air Quality (EA Section 5.2.1, page 5-1)

- Construction activities will employ standard management measures such as watering of graded areas, covering soil stockpiles, and contour grading (if necessary), to minimize temporary generation of dust and particulate matter.
- Diesel-powered highway and nonroad vehicles and engines used in construction will limit idling time to 3 minutes, except as necessary for safety, security, or to prevent damage to property; and such exhausts will be located the maximum feasible distance from any building fresh air intake vents.

Biological Resources (EA Section 5.2.2, page 5-1)

- Building location(s) and orientation(s) will be designed to minimize the loss of trees, particularly longleaf pines.
- A gopher tortoise survey is required before construction activities begin. Any tortoises found will be relocated. Any burrows on the project site will be investigated for the presence of eastern indigo snake. Burrows will be collapsed after investigation and relocation, if applicable, to deter subsequent occupation by additional gopher tortoises or other wildlife.

Hazardous Materials and Waste (EA Section 5.2.3, page 5-2)

- Construction will adhere to the present HWMP tracking and reporting requirements as well as AFI 32-7086.
- Nonhazardous solid waste associated with building construction activities would be recycled to the extent possible.

Utilities (EA Section 5.2.4, page 5-2)

- Coordination with all utility providers would be required prior to any ground-disturbing activities in an effort to minimize potential conflicts between utility providers.

Water Resources (EA Section 5.2.5, page 5-2)

- Alternative B and Alternative C will result in construction activities that disturb greater than 1 acre of undisturbed land (TLF and parking developing 1.5 acres of the 10-acre sites) that will require management to reduce off-site transmission of stormwater.
- Developers will adhere to all applicable regulatory requirements, as discussed in Section 1.4.2 and may be required to develop a SWPPP using *Stormwater Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices*, (USEPA, 1992).
- Stormwater treatment for TLF and parking lot runoff can incorporate dry swales, vegetative channels, bioretention areas, filter strips, or other practices that can be integrated into landscaping areas.

- The acreage not included in the construction, at either site, should be disturbed as little as possible and retain its current ecological function (for example, protecting critical root zones of retained trees).
- The use of silt fencing around the construction site and staging area may be required to prevent transmission of stormwater off-site.

PUBLIC NOTIFICATION

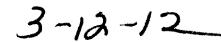
A public notice was published in the *Northwest Florida Daily News* on 4 February 2012, inviting the public to review and comment on the Draft EA and Draft Finding of No Significant Impact. The public comment period closed on 21 February 2012, and no public comments were received. State agency comments were received and have been addressed in Appendix A, *Public and Agency Outreach*, of the Final EA.

FINDING OF NO SIGNIFICANT IMPACTS

Based on my review of the facts and the environmental analysis contained in the attached EA, and as summarized above, I find that the proposed decision of the Air Force to allow the construction of a TLF on Eglin AFB, Florida, at the Proposed Action (Alternative B) site will not have a significant impact on the human or natural environment; therefore, an environmental impact statement is not required. This analysis fulfills the requirements of the NEPA, the President's CEQ, and 32 CFR Part 989.



VICKI L. PREACHER, P.E.
Deputy Base Civil Engineer



Date



PRINTED ON RECYCLED PAPER

EXECUTIVE SUMMARY

This Environmental Assessment (EA) analyzes and presents the potential environmental consequences associated with the construction of a temporary lodging facility (TLF) at Eglin Air Force Base (AFB), Florida. The Air Force proposes the construction of a new TLF complex on approximately 10 acres at Eglin AFB, plus the renovation of the ten Waterside TLF units. The complex will consist of 32 units and will include a primary facility, supporting facilities, setbacks, and open space. The purpose of this action is to update TLFs at Eglin AFB in order to accommodate the increase of permanent change of station demand associated with an upward population trend in the next several years. In addition, several of the existing TLFs at Eglin AFB are in poor condition and do not meet Air Force standards for TLF accommodations. Thus, there is a need to ensure adequate TLFs at Eglin AFB to meet current and future demand.

Several alternatives were initially considered as potential actions. However, nine criteria were defined and considered in the location of the new TLF. Based on the ability of the alternatives considered to meet the necessary criteria, several alternatives were eliminated. Those alternatives that were analyzed included a No Action, a proposed action at the intersection of Hatchee Road and Foster Drive, and an alternative action at the intersection of Memorial Trail and Hatchee Road. These alternatives chosen for analysis are referred to in this EA as Alternative A, Alternative B, and Alternative C, respectively. Each alternative considered potential impacts to eight different resource areas.

Analysis of Alternative A: No Action, which indicates that there would be no impacts to seven of the resource areas but there would be adverse impact to socioeconomic resources. Under this alternative, there would be an inadequate supply of temporary lodging units that meet U.S. Air Force quality standards and future demand. This could result in adverse impacts for the Eglin AFB community and personnel.

Analysis of Alternative B: Proposed Action at Hatchee Road and Foster Drive, plus renovation of the ten Waterside TLF units. There are no significant impacts anticipated to any of the eight resources. However, under this alternative, there would be short-term and temporary beneficial impacts to socioeconomic resources from construction expenditures and long-term positive impacts to the Eglin Community and Personnel from the adequate supply of TLF units on base that meet U.S. Air Force quality standards. In addition, Alternative B is the Preferred Alternative because it satisfies all nine selection criteria.

Analysis of Alternative C: The alternative action at Memorial Trail and Hatchee Road is similar to that described under Alternative B, since the action would be the same but the location would differ. Due to the location of the Alternative C site, the selection criterion that detailed the distance to community support facilities was not met. Thus, Alternative C was not selected as the Preferred Alternative.

No significant cumulative impacts have been identified for the eight resources under the Proposed Action to construct a new TLF at Eglin AFB. However, several management practices are provided to minimize any potential adverse impacts to environmental resources from the construction of a TLF at Eglin AFB.

This page left blank intentionally.

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	ES-1
List of Tables.....	iii
List of Figures.....	iii
List of Acronyms, Abbreviations, and Symbols	iv
1. PURPOSE AND NEED FOR ACTION.....	1-1
1.1 Introduction	1-1
1.2 Proposed Action	1-1
1.3 Purpose and Need for the Proposed Action.....	1-1
1.4 Scope of the Environmental Assessment.....	1-1
1.4.1 Issues Eliminated from Detailed Analysis.....	1-1
1.4.2 Issues Studied in Detail	1-4
1.5 EA Organization	1-5
1.6 Permitting Requirements and Agency Coordination	1-6
1.7 Related Environmental Documents	1-6
2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES	2-1
2.1 Alternatives Selection.....	2-1
2.1.1 Criteria for Selection	2-1
2.2 Alternatives Carried Forward for Analysis.....	2-2
2.2.1 Alternative A: No Action.....	2-2
2.2.2 Alternative B: Hatchee Rd. and Foster Dr., Renovate Ten Waterside Units (Proposed Action/Preferred Alternative)	2-3
2.2.3 Alternative C: Memorial Trail and Hatchee Rd., Renovate Waterside TLF.....	2-3
2.3 Alternatives Considered But Not Carried Forward	2-6
2.4 Comparison of Alternatives.....	2-6
3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	3-1
3.1 Air Quality.....	3-1
3.1.1 Definition.....	3-1
3.1.2 Affected Environment	3-1
Greenhouse Gas	3-4
3.1.3 Environmental Consequences.....	3-4
3.1.3.1 Alternative A: No Action.....	3-4
3.1.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)	3-4
3.1.3.3 Alternative C: Memorial Trail and Hatchee Rd.....	3-5
3.2 Biological Resources	3-5
3.2.1 Definition.....	3-5
3.2.2 Affected Environment	3-5
3.2.3 Environmental Consequences.....	3-6
3.2.3.1 Alternative A: No Action.....	3-6
3.2.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)	3-6
3.2.3.3 Alternative C: Memorial Trail and Hatchee Rd.....	3-7
3.3 Hazardous Materials and Waste	3-7
3.3.1 Definition.....	3-7
3.3.2 Affected Environment	3-8
3.3.3 Environmental Consequences.....	3-9
3.3.3.1 Alternative A: No Action.....	3-9

TABLE OF CONTENTS CONT'D

	<u>Page</u>
3.3.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)	3-9
3.3.3.3 Alternative C: Memorial Trail and Hatchee Rd.	3-11
3.4 Noise.....	3-12
3.4.1 Definition.....	3-12
3.4.2 Affected Environment	3-14
3.4.3 Environmental Consequences.....	3-14
3.4.3.1 Alternative A: No Action.....	3-16
3.4.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)	3-16
3.4.3.3 Alternative C: Memorial Trail and Hatchee Rd.	3-17
3.5 Safety.....	3-17
3.5.1 Definition.....	3-17
3.5.2 Affected Environment	3-20
3.5.3 Environmental Consequences.....	3-21
3.5.3.1 Alternative A: No Action.....	3-21
3.5.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)	3-21
3.5.3.3 Alternative C: Memorial Trail and Hatchee Rd.	3-21
3.6 Socioeconomics.....	3-21
3.6.1 Definition.....	3-21
3.6.2 Affected Environment	3-22
3.6.3 Environmental Consequences.....	3-23
3.6.3.1 Alternative A: No Action.....	3-23
3.6.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)	3-23
3.6.3.3 Alternative C: Memorial Trail and Hatchee Rd.	3-23
3.7 Utilities.....	3-23
3.7.1 Definition.....	3-23
3.7.2 Utilities	3-24
3.7.2.1 Potable Water.....	3-24
3.7.2.2 Nonpotable Water	3-26
3.7.2.3 Wastewater Disposal.....	3-26
3.7.3 Environmental Consequences.....	3-27
3.7.3.1 Alternative A: No Action.....	3-27
3.7.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)	3-27
3.7.3.3 Alternative C: Memorial Trail and Hatchee Rd.	3-28
3.8 Water Resources	3-28
3.8.1 Definition.....	3-28
3.8.2 Affected Environment	3-29
3.8.3 Environmental Consequences.....	3-32
3.8.3.1 Alternative A: No Action.....	3-32
3.8.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)	3-32
3.8.3.3 Alternative C: Memorial Trail and Hatchee Rd.	3-32
4. CUMULATIVE IMPACTS	4-1
4.1 Past, Present, and Reasonably Foreseeable Actions in the ROI	4-1
4.1.1 Past and Present Actions.....	4-1
4.1.2 Reasonably Foreseeable Future Actions	4-1
4.2 Irreversible and Irretrievable Commitment of Resources.....	4-3

TABLE OF CONTENTS CONT'D

	Page
5. MANAGEMENT PRACTICES	5-1
5.1 Regulations, Plans, and Permits	5-1
5.2 Management Actions	5-1
5.2.1 Air Quality	5-1
5.2.2 Biological Resources	5-1
5.2.3 Hazardous Materials and Waste	5-2
5.2.4 Utilities	5-2
5.2.5 Water Resources	5-2
6. LIST OF PREPARERS AND CONTRIBUTORS	6-1
7. REFERENCES	7-1
APPENDIX A Public and Agency Outreach.....	A-1
APPENDIX B Coastal Zone Management Act Consistency Determination.....	B-1

LIST OF TABLES

	Page
Table 2-1. Criteria Selection.....	2-2
Table 2-2. Comparison of Potential Issues by Action Alternatives	2-6
Table 3-1. National Ambient Air Quality Standards	3-2
Table 3-2. Baseline Emissions Inventory for Okaloosa County	3-3
Table 3-3. Alternative B Emissions	3-5
Table 3-4. Relationship Between Noise Level and Percent of Population Highly Annoyed	3-13
Table 3-5. Construction Noise	3-16
Table 3-6. Eglin AFB Population and Workforce Summary, April 2011	3-22
Table 3-7. Potable Water System Usage Associated with Eglin Housing Area	3-26
Table 3-8. Wastewater Treatment System Associated with the Project Areas	3-27

LIST OF FIGURES

	Page
Figure 1-1. Regional Location of Eglin AFB	1-2
Figure 1-2. Location of Proposed and Alternative Actions on Eglin AFB	1-3
Figure 2-1. South Corner of Property Viewing East.....	2-3
Figure 2-2. Foster Drive Viewing South	2-4
Figure 2-3. Northeast Border of Proposed Site Viewing Southwest	2-4
Figure 2-4. Northeast Corner of Proposed Site Viewing South.....	2-5
Figure 2-5. Northeast Border Viewing Southwest.....	2-5
Figure 3-1. ERP Sites Near Alternative B and Alternative C	3-10
Figure 3-2. Temporary Lodging Facility Alternative Locations with Aircraft Noise Contours	3-15
Figure 3-3. AT/FP Standoff Distances – No Controlled Perimeter	3-20
Figure 3-4. Utility Systems Available for Eglin TLF	3-25
Figure 3-5. Water Resources	3-31

LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS

96 CEG/CEVSN	Eglin Air Force Base Natural Resources Section
AAC	Air Armament Center
ACAM	Air Conformity Applicability Model
AFB	Air Force Base
AFH	Air Force Handbook
AFI	Air Force Instruction
AFPD	Air Force Policy Directive
AFOSH	Air Force Occupational Safety and Health
AICUZ	Air Installation Compatible Use Zone
AT	Antiterrorism
AT/FP	Anti-Terrorism/Force Protection
BMP	Best Management Practices
BRAC	Base Realignment and Closure
C&D	Construction and Demolition
CAA	Clean Air Act
CEG	Civil Engineering Group
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CEV	Environmental Management Division
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO2	Carbon Dioxide
CWA	Clean Water Act
CY	Calendar Year
CZMA	Coastal Zone Management Act
dB	Decibels
dBA	A-Weighted Decibels
dBc	C-Weighted Decibels
dBp	P-Weighted Decibels
DNL	Day/Night Average Sound Level
DoD	Department of Defense
DODI	Department of Defense Instruction
Dr.	Drive
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act
ERP	Environmental Restoration Program
ESA	Endangered Species Act of 1973
FAA	Federal Aviation Administration
FAC	Florida Administrative Code
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FICUN	Federal Interagency Committee on Urban Noise
FDEP	Florida Department of Environmental Protection
FONPA	Finding of No Practical Alternative
ft ²	Square Foot/Feet
FY	Fiscal Year
HAZMAT	Hazardous Material
HMMP	Hazardous Material Management Plan
HWMP	Hazardous Waste Management Plan
Hz	Hertz
IJTS	Initial Joint Training Site

LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS CONT'D

JSF	Joint Strike Fighter
kWh	Kilowatt-Hour
lbs	Pounds
$L_{eq(8)}$	8-hour Noise Level Equivalent
L_{max}	Maximum Sound Level
LOS	Level of Service
$\mu\text{g}/\text{m}^3$	Micrograms per Cubic Meter
mg/m^3	Milligrams per Cubic Meter
MFH	Military Family Housing
MGD	Millions of Gallons per Day
MHPI	Military Housing Privatization Initiative
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NEI	National Emissions Inventory
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NLR	Noise Level Reduction
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWFWMD	North West Florida Water Management District
OSHA	Occupational Safety and Health Administration
PCS	Permanent Change of Station
$\text{PM}_{2.5}$	Particulate matter with a diameter of less than or equal to 2.5 microns
PM_{10}	Particulate matter with a diameter of less than or equal to 10 microns
PPB	Parts per Billion
PPM	Parts per Million
PWS	Potable Water System
RCRA	Resource Conservation and Recovery Act
RCNM	Roadway Construction Noise Model
RCW	Red-cockaded Woodpecker
Rd.	Road
ROD	Record of Decision
ROI	Region of Influence
SO_x	Sulfur Oxides
STD	Standard
SWDA	Solid Waste Disposal Act
SWPPP	Stormwater Pollution Prevention Plan
TDY	Temporary Duty
TLF	Temporary Lodging Facility
UFC	Unified Facilities Criteria
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventative Medicine
USC	United States Code
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
USEPA	United States Environmental Protection Agency
UXO	Unexploded Ordnance
VOC	Volatile Organic Compound
WRCA	Water Resource Caution Area
WWTP	Wastewater Treatment Plant

This page left blank intentionally.

1. PURPOSE AND NEED FOR ACTION

1.1 INTRODUCTION

This Environmental Assessment (EA) analyzes and presents the potential environmental consequences associated with the construction of a temporary lodging facility (TLF) at Eglin Air Force Base (AFB), Florida. This EA is prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and Air Force regulations implementing NEPA procedures (32 CFR 989). Figure 1-1 depicts the regional setting of this action.

1.2 PROPOSED ACTION

The Air Force proposes the construction of a new TLF complex on approximately 10 acres at Eglin AFB to provide 32 units. The complex will include a primary facility, supporting facilities, setbacks, and open space. Figure 1-1 depicts the location of the proposed and alternative actions. More detailed information regarding the proposed and alternative actions is provided in Chapter 2, Description of Proposed Action and Alternatives.

1.3 PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of this action is to update TLFs at Eglin AFB in order to accommodate the increase of permanent change of station (PCS) demand associated with an upward population trend in the next several years. In addition, several of the existing TLFs at Eglin AFB are in poor condition and do not meet Air Force Standards for TLF accommodations. Thus, there is a need to ensure adequate TLFs at Eglin AFB to meet current and future demand.

1.4 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

1.4.1 Issues Eliminated from Detailed Analysis

A preliminary impact analysis of the proposed action revealed that several environmental issues could be eliminated for further analysis because no adverse impacts are anticipated to these resources as a result of the proposed or alternative actions. These resource areas include soil, land use, transportation, environmental justice, and cultural resources. An explanation for their dismissal follows.

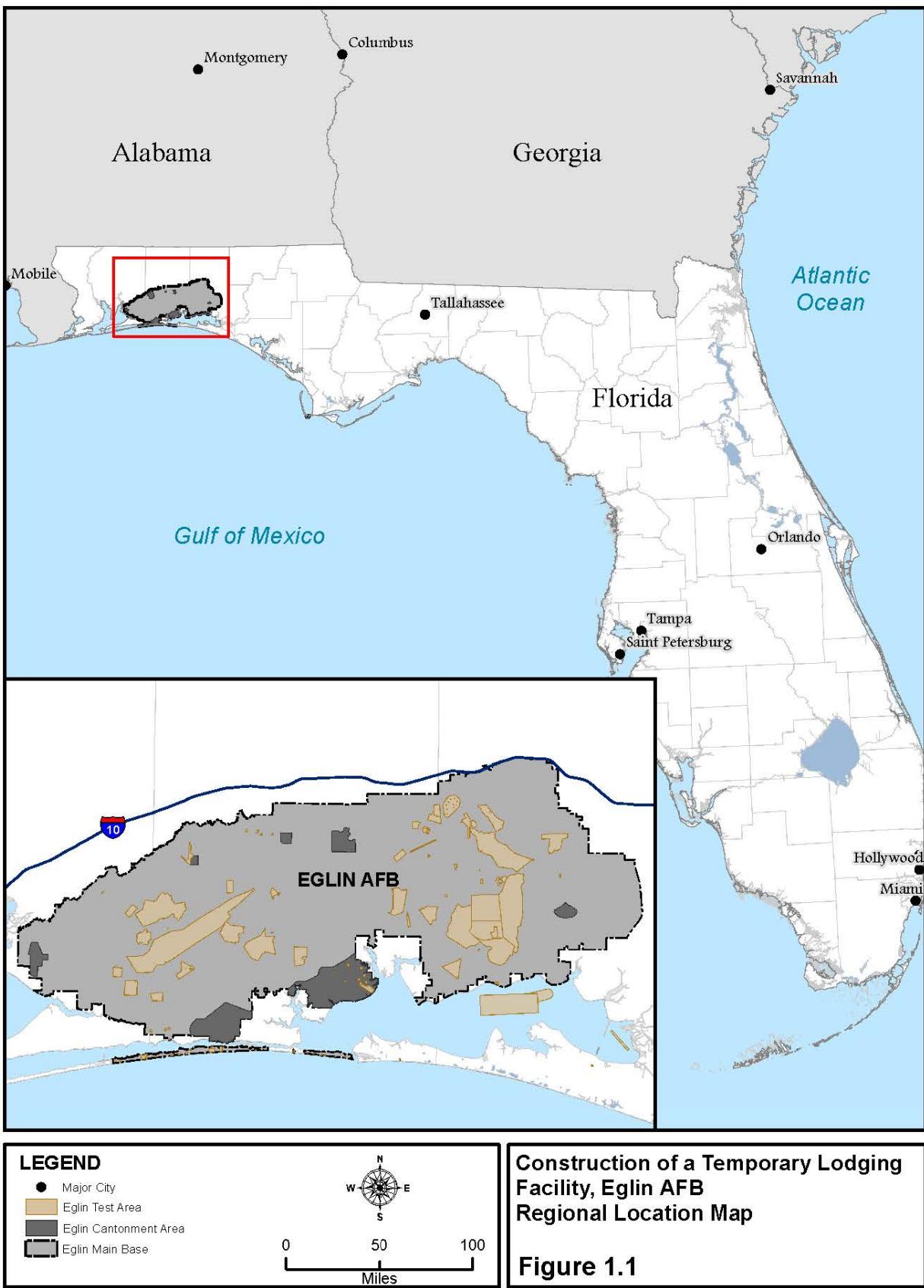
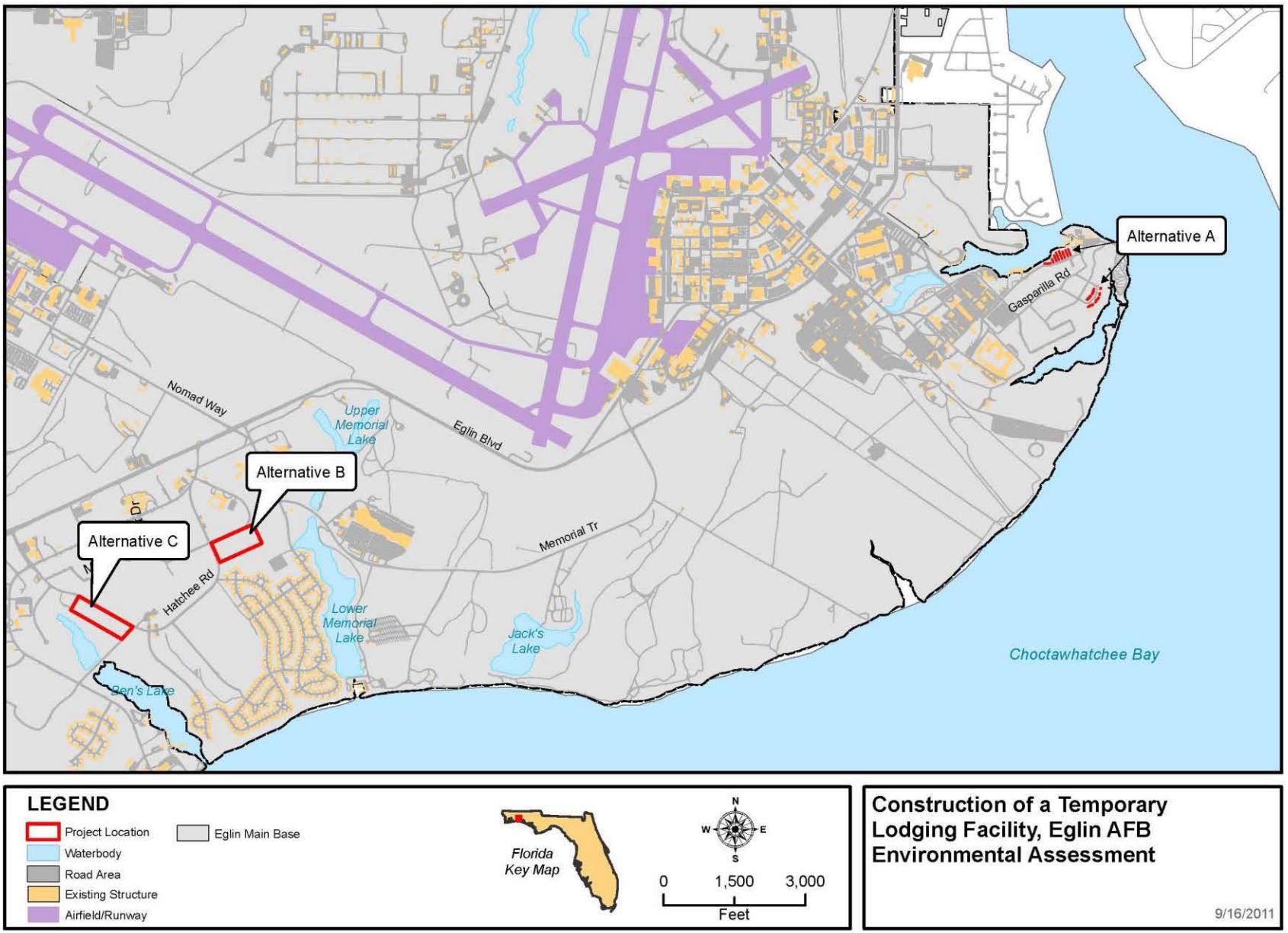


Figure 1.1. Regional Location of Eglin AFB



Soil

Construction activities have the potential to disturb soils. Characteristics such as soil type, slope, activity planned, and nature of vegetative cover are determining factors on how the area could be impacted by erosion. Based on the characteristics of the soil at the proposed and alternative locations, it is anticipated that there would be no impacts from erosion. Thus, no further analysis of soils is warranted.

Land Use

No changes to land use are anticipated. The construction of a new TLF would be erected in an area designated for similar functions. Thus, no further analysis of land use is warranted.

Transportation

The minimum acceptable level of service (LOS) for base roadways is LOS "E." Based on the 2008 Transportation Master Plan (Eglin AFB, 2008), none of the 80 roadway segments within the Eglin Main Complex operate at or worse than LOS "E." Under the proposed or alternative actions, the maximum number of additional vehicles during full occupancy of the lodging facility would not have an impact on the LOS of the nearby and surrounding roads, and therefore would not result in roadway segments operating at or worse than LOS "E." Thus, no further analysis of transportation is warranted.

Environmental Justice

No disproportionately high and/or adverse human health or environmental effects have been identified to minority or low-income populations due to construction activities at Eglin AFB. Construction activities would occur within the boundaries of Eglin AFB and would not impact off-base populations. Thus, no further analysis of environmental justice is warranted.

Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires that federal agencies analyze the impacts of federally directed or funded undertakings on historic properties. There are no known cultural resources located in the vicinity of the project area. Thus, no further analysis of cultural resources is warranted.

1.4.2 Issues Studied in Detail

Preliminary analysis based on the scope of the Proposed Action and Alternatives identified the following potential environmental issues warranting detailed analysis.

Air Quality

Air quality could be affected by the addition of combustive by-products and dust to the air resulting from construction and land clearing.

Biological Resources

Site preparation and construction would require the removal of long leaf pine trees and other vegetation, which could potentially affect wildlife.

Noise

The noise section discusses potential noise impacts to the community surrounding the proposed site location of the TLF. The analysis addresses expected noise levels from construction and future use of the area in the proposed and alternative actions. Noise level reduction measures will be required in the construction of the TLFs.

Hazardous Materials/Solid Waste

The analyses will address the quantity of debris generated from the proposed and alternative actions, including the proper handling of hazardous materials.

Safety

Safety analysis evaluates potential hazards to military personnel and the public resulting from construction activities.

Socioeconomics

Potential socioeconomic impacts associated with the proposed action include temporary increases in base populations and housing availability.

Utilities

Electric utilities, communication, natural gas, potable water, nonpotable water for fire suppression, and wastewater disposal for the proposed complex are examined as part of this analysis.

Water

Water resource issues include impervious surface changes and the potential for an increase in the rate and volume of stormwater runoff. Potential water supply issues are discussed.

1.5 EA ORGANIZATION

This EA is organized into the following chapters and appendices. Chapter 1 describes the purpose and need of the proposal to construct a new TLF at Eglin AFB. Chapter 2 provides a description of Alternative A: No Action; Alternative B: Hatchee Road (Rd.) and Foster Drive (Dr.) (Proposed Action/Preferred Alternative); and Alternative C: Memorial Trail and Hatchee Rd. Chapter 2 also provides a comparative summary of the effects of Alternative A, B, and C with respect to the various environmental resources.

Chapter 3 describes the existing conditions within the affected environment at Eglin AFB and the environmental consequences associated with implementing Alternative A, B, or C. Chapter 4

presents a cumulative analysis, considers the relationship between short-term uses and long-term productivity identified for the resources affected, and summarizes the irreversible and irretrievable commitment of resources if the Proposed Action were implemented. Chapter 5 discusses Management Practices. A list of the document preparers is included in Chapter 6. Chapter 7 contains references cited in the EA and lists the individuals and organizations contacted during the preparation of the EA.

In addition to the main text, the following appendices are included in this document: Appendix A, Public and Agency Outreach and Appendix B, Federal Agency Coastal Zone Management Act Consistency Determination.

1.6 PERMITTING REQUIREMENTS AND AGENCY COORDINATION

A National Pollutant Discharge Elimination System (NPDES) general permit for stormwater discharge (Chapter 62-621.300 [4], Florida Administrative Code [FAC]) and a stormwater pollution prevention plan (SWPPP) may be required based on site and construction design inspection. The general requirements for NPDES stormwater permitting at construction sites are provided in Chapter 62-621, FAC. In addition to the NPDES permit, a generic permit for new stormwater discharge facility (Chapter 62-346, FAC) may also be required.

Analysis presented in this EA has determined that there are no threatened or endangered species or critical habitat within the project area. In addition, there are no cultural/historical resources in the project area identified as eligible to the National Register of Historic Places (NRHP). As a result, no consultations with respective regulatory agencies are required for the Proposed Action.

A public notice was published in the *Northwest Florida Daily News* on 4 February 2012, inviting the public to review and comment on the Draft EA and Draft Finding of No Significant Impact. The public comment period closed on 21 February 2012, and no public comments were received. State agency comments were received and have been addressed in Appendix A, *Public and Agency Outreach*.

This construction project requires consistency with Florida's Coastal Zone Management Act (CZMA). The Florida Department of Environmental Protection (FDEP) reviewed a consistency determination submitted by the U.S. Air Force via Eglin AFB's Natural Resources Section (96 CEG/CEVSN). The Air Force CZMA Consistency Determination is provided in Appendix B, *Coastal Zone Management Act Consistency Determination*.

1.7 RELATED ENVIRONMENTAL DOCUMENTS

The following are environmental documents that are related to the Proposed Action.

- Eglin Air Force Base (AFB), 2011. Air Force (AF) Form 813: Construct New TLF's. RCS Number: 10-692.
- U.S. Air Force (USAF), 2011. Military Housing Privatization Initiative (MHPI), Eglin AFB, Florida; Hurlburt Field, Florida. Final Environmental Statement. May 2011.

2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

As required by 40 CFR 1500–1508, this EA addresses the possible environmental impacts of Alternative A: No Action; Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative), with renovation of Waterside TLF units; and Alternative C: Memorial Trail and Hatchee Rd, with renovation of Waterside TLF units.

2.1 ALTERNATIVES SELECTION

2.1.1 Criteria for Selection

Several criteria were considered in the selection for the location of the new TLF at Eglin AFB. Table 2-1 indicates which criteria each of the alternatives analyzed in this EA satisfied. Table 2-1 also presents alternatives that were not carried forward. Alternatives D through G were not carried forward because they did not meet certain critical requirements. Descriptions of the criteria are as follows:

1. Ample space – The location shall be large enough to cover approximately 10 acres in order to support the primary facility, supporting facilities, setback, and open spaces.
2. AICUZ compatible – The facility shall be located in noise zones 65–79 decibels (dB) with measures taken to achieve noise level reduction (NLR) and noise attenuation measures as indicated in the AICUZ Program Manager’s Guide (Air Force Handbook 32-7084).
3. Does not alter land use – The location should be compatible with related facilities and create pleasant and safe pedestrian movement.
4. Accessible utilities – Existing utilities should be easily accessible and available.
5. Minimal impact on the natural environment – The location should avoid, if at all possible, areas that encroach on floodplains, wetlands, threatened and endangered species, plants, and habitats.
6. Meets Air Force quality standards – The facilities shall comply with the requirements outlined in the United States Air Force Temporary Lodging Facilities Design Guide (U.S. Air Force, 2001).
7. Is not designated as potential MHPI area – The location shall not be within an area designated as a potential military housing area. This is a critical requirement.
8. Close proximity to community support facilities – The location should be within 2,000 feet of amenities such as the base exchange, schools, playgrounds, and residential neighborhoods.
9. Meets lodging demand – The end total number of units shall provide the recommended 42 total units needed to support current and future demand. This is a critical requirement.

Table 2-1. Criteria Selection

Criteria	Alt A: No Action (Existing TLF)	Alt B: Hatchee Rd. and Foster Dr.; Renovate Waterside (Proposed/ Preferred Alternative)	Alt C: Memorial Trail and Hatchee Rd. (Alternative Action)	Alt D: Renovate Existing TLF	Alt E: Renovate Waterside Inn TLF	Alt F: West Side of Ben's Lake	Alt G: East Side of Ben's Lake
Ample Space	No	Yes	Yes	No	No	Yes	Yes
AICUZ Compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does not alter land use	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Accessible Utilities	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Minimal Impact on the natural environment	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Close Proximity to Community Support Facilities	No	Yes	No	No	No	No	No
Meets U.S. Air Force quality standards	No	Yes	Yes	Yes	Yes	Yes	Yes
Is not designated potential MHPI area	Yes	Yes	Yes	Yes	Yes	No	No
Meets Lodging Demand	No	Yes	Yes	No	No	Yes	Yes

2.2 ALTERNATIVES CARRIED FORWARD FOR ANALYSIS

2.2.1 Alternative A: No Action

Under Alternative A: No Action, the Air Force would not implement the actions described in Section 1.2, Proposed Action and instead the existing TLFs at Eglin AFB would continue to be utilized. The existing TLFs do not meet U.S. Air Force quality standards and remain inadequate to support the quality of life needs of existing and future TLF demand due to the age and poor condition of some of the existing TLF units.

2.2.2 Alternative B: Hatchee Rd. and Foster Dr., Renovate Ten Waterside Units (Proposed Action/Preferred Alternative)

Under Alternative B, the U.S. Air Force would implement the construction of a TLF consisting of 32 units on approximately 435,600 square feet (10 acres), including setback and open space requirements. The Preferred Alternative location for the TLF is the corner of Hatchee Rd. and Foster Dr. at Eglin AFB (Table 2-1). Figure 2-1 through Figure 2-5 depict the current view of Alternative B. Additionally, the ten Waterside TLF units would be renovated to meet the 42 unit demand. The primary facility will consist of the construction of a building or series of buildings covering approximately 45,000 square feet (1 acre) and a parking lot area covering approximately 32,670 square feet (0.75 acre). Supporting facilities would include utilities; parking lot lighting; walks, curbs and gutters; storm drainage; site improvements; antiterrorism (AT) protection measures; and building information systems. The location of the TLF under Alternative B is the most favorable because it meets all of the selection criteria as outlined in Section 2.1.1. (See Table 2-1).



Figure 2-1. South Corner of Property Viewing East

2.2.3 Alternative C: Memorial Trail and Hatchee Rd., Renovate Waterside TLF

Under Alternative C, the action would be the same as described under Alternative B. However, the location of Alternative C would differ. The location of Alternative C is at the north corner of Memorial Trail and Hatchee Rd. This location was considered for further analysis because it met the most criteria second to Alternative B as outlined in Section 2.1.1, Criteria for Selection (shown in Table 2-1).



Figure 2-2. Foster Drive Viewing South



Figure 2-3. Northeast Border of Proposed Site Viewing Southwest



Figure 2-4. Northeast Corner of Proposed Site Viewing South



Figure 2-5. Northeast Border Viewing Southwest

2.3 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD

Several alternatives were considered in the decision for fulfilling the need to provide adequate TLF for Air Force personnel. However, the alternatives described in this section were eliminated from further analysis because they did not satisfy as many selection criteria as Alternatives A, B, and C described in Section 2.1.1, Criteria for Selection (shown in Table 2-1), and either did not meet critical space requirements or conflicted with land designated for MHPI.

Alternative D was to renovate one of the two existing TLFs at Eglin AFB, in particular, the Cove Inn TLF Complex. Renovations included removal of suspected lead-based paint and asbestos; leveling and stabilizing of heaving slabs; and correction of the physical layout of the units to meet the basic TLF design guide standards along with additional general upgrades.

Alternative E was to continue using the existing TLF complexes but to only perform minor renovations on the existing Waterside Inn TLF complex. No renovations would be made to the Cove Inn TLF. The Cove Inn TLF would therefore continue to be inadequate for TLF accommodations according to the U.S. Air Force.

Alternatives F and G were to locate the TLF at either the west side or the east side of Ben's Lake at the intersection of Hatchee Rd. and Ben's Lake. Both options were dismissed because both locations have already been designated as housing privatization areas.

2.4 COMPARISON OF ALTERNATIVES

Table 2-2 provides a brief description of potential issues to each resource area associated with implementation of Alternative A, B, and C.

Table 2-2. Comparison of Potential Issues by Action Alternatives

Potential Issue	Alternative A: No Action	Alternative B: Hatchee Rd. and Foster Dr., Renovate Waterside TLF	Alternative C: Memorial Trail and Hatchee Rd., Renovate Waterside TLF
Air Quality	No adverse effects to air quality are expected as a result of Alternative A.	Construction related emissions would be temporary and minimal in comparison to regional emissions. Alternative B would not adversely affect regional air quality.	Same as under the Alternative B.

Table 2-2. Comparison of Potential Issues by Action Alternatives, Cont'd

Potential Issue	Alternative A: No Action	Alternative B: Hatchee Rd. and Foster Dr., Renovate Waterside TLF	Alternative C: Memorial Trail and Hatchee Rd., Renovate Waterside TLF
Biological	There would be no significant impacts to biological resources under Alternative A. The TLF would not be constructed, the degree of human presence would not change, no habitat would be disturbed, and no trees would be removed. Wildlife use of the area would not change compared to current conditions.	There would be no significant impacts to biological resources under Alternative B. Habitat loss would be minimal, and the site occurs within the context of the developed base housing area. Removal of trees, including longleaf pine, would be minimized to the degree feasible. No sensitive species have been documented at the site.	There would be no significant impacts to biological resources under Alternative C. Habitat loss would be minimal, and the site occurs within the context of the developed base housing area. Removal of trees, including longleaf pine, would be minimized to the degree feasible. No sensitive species have been documented at the site.
Hazardous Materials/Waste	Under Alternative A, the Eglin Temporary Lodge would not be constructed, and would therefore have no impact on HAZMAT/Hazardous Waste Management or solid waste.	Under Alternative B, there is potential to generate HAZMAT, which would be processed in accordance with the HWMP. During construction, 168.6 tons of construction debris would be produced, which is manageable under the waste management program. There would be no impact to the Environmental Restoration Program (ERP).	Under Alternative C, there is potential to generate HAZMAT, which would be processed in accordance with the HWMP. During construction, 168.6 tons of construction debris would be produced, which is manageable under the waste management program. There would be no impact to the ERP.
Noise	No new construction would take place under Alternative A; thus, there would be no change to the current noise levels.	No adverse impacts from construction noise are expected under Alternative B. The site location for the TLF would be in a 70 to 74 Day/Night Average Sound Level (DNL) which would require that noise level reduction should be incorporated into the building design.	No adverse impacts from construction noise are expected for Alternative C. The site location would fall under the 65 to 70 DNL aircraft noise contours and would require that noise level reduction should be incorporated into the building design.
Safety	Under Alternative A, the Eglin Temporary Lodge would not be constructed, and would therefore have no impact on safety.	Under Alternative B, there would be no adverse impacts to safety, including fire and security response, Anti-Terrorism/Force Protection (AT/FP), and job site safety.	Under Alternative C, there would be no adverse impacts to safety, including fire and security response, AT/FP, and job site safety.

Table 2-2. Comparison of Potential Issues by Action Alternatives, Cont'd

Potential Issue	Alternative A: No Action	Alternative B: Hatchee Rd. and Foster Dr., Renovate Waterside TLF	Alternative C: Memorial Trail and Hatchee Rd., Renovate Waterside TLF
Socioeconomics	<p>Under Alternative A, the construction of a new TLF would not be implemented. Under this alternative, there would not be an adequate supply of temporary lodging units that meet U.S. Air Force quality standards and future demand. Thus, military personnel, retirees, and other users would be required to find temporary lodging facilities off-base. This could potentially result in adverse impacts for the Eglin AFB community and personnel.</p>	<p>Under Alternative B, the construction of the TLF would result in beneficial impacts to the Eglin AFB community and personnel. There would be a minor and temporary benefit to socioeconomic resources during the construction phase from the use of local labor and supplies. Benefits associated with construction activities are anticipated to be minor and temporary lasting only for the duration of the construction phase.</p> <p>During the operational phase, there would be a minor and negligible change in population. No changes to employment are anticipated under this alternative because no new jobs would be created. However, businesses on base could experience temporary and minor benefits from additional expenditures from TLF users that would otherwise have to locate accommodations off-base.</p>	<p>Potential impacts to socioeconomic resources under Alternative C are similar to those described under Alternative B.</p>
Utilities	<p>Under Alternative A, the Eglin Temporary Lodge would not be constructed, and would therefore have no impact on the utilities infrastructure on Eglin AFB.</p>	<p>Under Alternative B, existing utilities are readily available and intact. Existing utility lines would be accessed in order to meet the needs of the TLF. In addition, potable water and wastewater disposal on Eglin AFB are operating under capacity. The additional usage associated with Alternative B is not anticipated to result in levels exceeding capacity. Therefore, the Air Force does not anticipate any adverse impacts associated with Alternative B.</p>	<p>The potential environmental consequences from utilities are minimal, and are identical to those described for Alternative B.</p>

Table 2-2. Comparison of Potential Issues by Action Alternatives, Cont'd

Potential Issue	Alternative A: No Action	Alternative B: Hatchee Rd. and Foster Dr., Renovate Waterside TLF	Alternative C: Memorial Trail and Hatchee Rd., Renovate Waterside TLF
Water	Alternative A would not affect water resources.	Construction of the TLF on the Alternative B Action would not affect surface waters or wetlands because of the distance from the site from these features, soil permeability and adherence to NPDES and FDEP permit requirements for construction.	Similarly to Alternative B, implementing Alternative C would not result in significant impacts to water resources.

AFB = Air Force Base; Anti-Terrorism/Force Protection; DNL = Day/Night Average Sound Level; ERP = Environmental Remediation Program; FDEP = Florida Department of Environmental Protection; HAZMAT = hazardous materials; HWMP = Hazardous Waste Maintenance Plan NPDES = National Pollutant Discharge Elimination System; TLF = Temporary Lodging Facility

This page left blank intentionally.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 AIR QUALITY

3.1.1 Definition

Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. The levels of pollutants are generally expressed on a concentration basis in units of parts per million (ppm) or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

The baseline standards for pollutant concentrations are the National Ambient Air Quality Standards (NAAQS) and state air quality standards. These standards represent the maximum allowable atmospheric concentration that may occur and still protect public health and welfare (Table 3-1). Based on measured ambient air pollutant concentrations, the U.S. Environmental Protection Agency (USEPA) designates whether areas of the U.S. meet the NAAQS. Those areas demonstrating compliance with the NAAQS are considered “attainment” areas, while those areas not in compliance are known as “nonattainment.” Those areas that cannot be classified on the basis of available information for a particular pollutant are “unclassifiable” and are treated as attainment areas until proven otherwise.

3.1.2 Affected Environment

Baseline Emissions

For this air quality analysis, the region of influence (ROI) is Okaloosa County. The FDEP currently operates one ozone monitor in Okaloosa County, located at 720 Lovejoy Rd. in Fort Walton Beach. This monitor began monitoring ozone levels on December 4, 2008 (FDEP, 2009). Okaloosa County is classified as an attainment area, as are all counties within Florida (other than Hillsborough County near Tampa) (USEPA, 2011a).

An air emissions inventory describes the amount of emissions from a facility or within an area. Emissions inventories locate pollution sources, define the type and size of sources, characterize emissions from each source, and estimate total mass emissions generated over a period of time, normally a year. These annual rates are typically represented in tons per year. Inventory data establish relative contributions to air pollution concerns by classifying sources and determining the adequacy, as well as necessity, of air regulations. Accurate inventories are imperative for development of appropriate air quality regulatory policy. These inventories include stationary sources and encompass equipment/processes such as boilers, electric generators, surface coating, and fuel handling operations. Mobile sources include motor vehicles, aerospace ground support equipment, and aircraft operations.

Table 3-1. National Ambient Air Quality Standards

Pollutant	Primary Standards		Secondary Standards		
	Level	Averaging Time	Level	Averaging Time	
Carbon monoxide	9 ppm (10 mg/m ³)	8 hours ^a	None		
	35 ppm (40 mg/m ³)	1 hour ^a			
Lead	0.15 µg/m ³ ^b	Rolling 3-month average	Same as primary		
	1.5 µg/m ³	Quarterly average	Same as primary		
Nitrogen dioxide	53 ppb ^c	Annual (arithmetic average)	Same as primary		
	100 ppb	1 hour ^d	None		
Particulate matter (PM ₁₀)	150 µg/m ³	24 hours ^e	Same as primary		
Particulate matter (PM _{2.5})	15.0 µg/m ³	Annual ^f (arithmetic mean)	Same as primary		
	35 µg/m ³	24 hours ^g	Same as primary		
Ozone	0.075 ppm (2008 std)	8 hours ^h	Same as primary		
	0.08 ppm (1997 std)	8 hours ⁱ	Same as primary		
	0.12 ppm	1 hour ^j	Same as primary		
Sulfur dioxide	0.03 ppm	Annual (arithmetic average)	0.5 ppm (1,300 µg/m ³)	3 hours ^a	
	0.14 ppm	24 hours ^a			
	75 ppb ^k	1 hour	None		

Source: USEPA, 2011b

µg/m³ = microgram per cubic meter; mg/m³ = milligrams per cubic meter; NO₂ = nitrogen dioxide; PM₁₀ = particulate matter with a diameter of less than or equal to 10 microns; PM_{2.5} = particulate matter with a diameter of less than or equal to 2.5 microns; ppb = parts per billion; ppm = parts per million; std = standard

a. Not to be exceeded more than once per year.

b. Final rule signed October 15, 2008.

c. The official level of the annual NO₂ standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.

d. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb (effective January 22, 2010).

e. Not to be exceeded more than once per year on average over 3 years.

f. To attain this standard, the 3-year average of the weighted annual mean PM_{2.5} concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m³.

g. To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m³ (effective December 17, 2006).

h. To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm (effective May 27, 2008).

i. (1) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

(2) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as USEPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.

(3) USEPA is in the process of reconsidering these standards (set in March 2008).

j. (1) USEPA revoked the 1-hour ozone standard in all areas, although some areas have continuing obligations under that standard (“anti-backsliding”).

(2) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤ 1 .

k. Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

For comparison purposes, the USEPA's 2002 National Emissions Inventory (NEI) data for Okaloosa County are presented in Table 3-2, Baseline Emissions Inventory for Okaloosa County. The county data include emissions amounts from point sources (a stationary source that can be identified by name and location), non-point sources (a point source whose emissions are too small to track individually, such as a home or small office building, or a diffuse stationary source, such as wildfires or agricultural tilling), and mobile sources (any kind of vehicle or equipment with gasoline or diesel engine, airplane, or ship) (USEPA, 2002).

Table 3-2. Baseline Emissions Inventory for Okaloosa County

Source Type	Emissions (tons/year)					
	CO	NO _x	SO _x	VOCs	PM ₁₀	PM _{2.5}
Point source emissions	28	49	12	79	8	6
Non-point and mobile source emissions	96,594	7,864	1,418	19,157	7,846	3,710
Total	96,622	7,913	1,430	19,236	7,854	3,716

Source: USEPA, 2002

CO = carbon monoxide; NO_x = nitrogen oxides; PM_{2.5} = particulate matter with a diameter of less than or equal to 2.5 microns; PM₁₀ = particulate matter with a diameter of less than or equal to 10 microns; SO_x = sulfur oxides; VOC = volatile organic compound

In the past, a combination of the Clean Air Act (CAA) Prevention of Significant Deterioration Rule's 250-ton-per-year threshold for new or modified stationary sources and the General Conformity Rule's regional significance threshold of 10 percent of the region's emissions has often been used to indicate significance/nonsignificance for air quality impacts. However, the USEPA recently promulgated a revised General Conformity Rule that abolished the regional significance threshold for federal actions in nonattainment or maintenance areas ("Revisions to the General Conformity Regulations," 75 *Federal Register* 17254, April 5, 2010). Given that change, as well as other considerations, a slightly different methodology is being used for this EA.

In order to evaluate air emissions and their impact on the ROI, the emissions associated with the project activities were compared with the total emissions on a pollutant-by-pollutant basis for the ROI's 2002 NEI data. Potential impacts to air quality were evaluated with respect to the extent, context, and intensity of the impact in relation to relevant regulations, guidelines, and scientific documentation. The CEQ defines significance in terms of context and intensity (40 CFR 1508.27). Thus, the significance of the action must be analyzed in respect to the setting of the Proposed Action and relative to the severity of the impact. The CEQ NEPA regulations (40 CFR 1508.27[b]) provide 10 key factors to consider in determining an impact's intensity.

To provide for a more conservative analysis, Okaloosa County was selected as the ROI instead of the USEPA-designated air quality control region, which is a much larger area. To identify impacts, calculated air emissions were compared with the annual total emissions of Okaloosa County as represented in the 2002 NEI. The air quality analysis focused on emissions associated with construction and demolition (C&D) activities.

Greenhouse Gas

Greenhouse gases are chemical compounds in the Earth's atmosphere that trap heat. Gases exhibiting greenhouse properties come from both natural and man-made sources. Water vapor, carbon dioxide (CO₂), methane, and nitrous oxide are examples of greenhouse gases that have both natural and man-made sources, while other gases such as those used for aerosols are exclusively man-made. In the United States, greenhouse gas emissions come mostly from energy use. These are driven largely by economic growth, fuel used for electricity generation, and weather patterns affecting heating and cooling needs. Energy-related CO₂ emissions resulting principally from petroleum and natural gas represent over 80 percent of total U.S. man-made greenhouse gas emissions (U.S. Energy Information Administration, 2009).

3.1.3 Environmental Consequences

This section discusses the potential impacts to air quality as a result of Alternative A, Alternative B, and Alternative C. Emissions associated with construction, including combustive emissions from heavy machinery, tools, and generators as well as worker trips would be the main contributors to air quality effects.

The U.S. Air Force Air Conformity Applicability Model (ACAM) was used to determine if the different alternatives would constitute a significant impact for Okaloosa County emissions on an individual pollutant basis. As discussed in Section 3.1.2, the context and intensity of the emissions resulting under Alternative B and Alternative C were evaluated by comparing them with the total Okaloosa County emissions for each pollutant. Although a conformity determination is not required, since Okaloosa County is designated "attainment," the ACAM provides a level of consistency with respect to emissions factors and calculations.

3.1.3.1 Alternative A: No Action

Under Alternative A, the TLF would not be constructed. There would be no increased emissions and no impacts to the baseline emissions for the ROI under this alternative.

3.1.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)

Alternative B would include grading, structure construction, and paving of parking areas. These operations would also include construction worker trips and stationary equipment (e.g., generators and saws), mobile equipment, and architectural coatings. Construction emissions are mainly related to fossil fuel combustion during use of machinery and fugitive dust emissions from ground disturbance and other physical disturbances.

As indicated in Table 3-3, Alternative B Emissions, the individual pollutant emissions from this action would not exceed 1 percent of the total Okaloosa County emissions for each corresponding pollutant. The pollutants with the highest percentages are VOCs and PM₁₀, which are approximately 0.20 percent and 0.23 percent of Okaloosa County's total VOC and PM₁₀, emissions, respectively, based on the USEPA 2002 NEI. Therefore, there would be no major impacts to air quality associated with Alternative B.

Table 3-3. Alternative B Emissions

Annual Emissions Source	Criteria Pollutant (tons per year)					
	CO	NO _x	SO ₂	VOCs	PM ₁₀	PM _{2.5}
Construction, renovation, and demolition	0.24	0.02	0.00	50.63	17.88	0.00
Okaloosa County (ROI)	96,662	7,913	1,430	19,236	7,854	3,716
Percent of ROI	0.00%	0.00%	0.00%	0.26%	0.23%	0.00%

CO = carbon monoxide; NO_x = nitrogen oxides; PM_{2.5} = particulate matter less than or equal to 10 microns in diameter; PM₁₀ = particulate matter less than or equal to 25 microns in diameter; ROI = region of influence; SO₂ = sulfur dioxide; VOC = volatile organic compound

Alternative B would include combustion of fossil fuels, which would lead to increased greenhouse gas emissions. However, the CEQ recommended that emissions equal to or greater than 25,000 metric tons annually should be included in NEPA assessments (CEQ, 2010). Project C&D emissions from fossil fuel combustion would not approach 25,000 metric tons. Thus, no major impacts to local or regional air quality would result from activities at Eglin AFB associated with implementation of Alternative B.

3.1.3.3 Alternative C: Memorial Trail and Hatchee Rd.

Emissions from Alternative C would be the same as calculated above for Alternative B, the Preferred Alternative. Alternative C would include the same grading, construction, and paving operations and worker trips. The facilities would all be the same sizes discussed above for Alternative B but at a different location on Eglin Main Base approximately 1,000 yards west of the preferred location. No adverse impacts to local or regional air quality are anticipated as a result of Alternative C.

3.2 BIOLOGICAL RESOURCES

3.2.1 Definition

Biological resources at the proposed and alternative sites include terrestrial plant and animal species, as well as the habitats that support these species. Sensitive species are those species protected under federal or state law, and include migratory birds and threatened and endangered species. An endangered species is one that is in danger of extinction throughout all or a significant portion of its range. A threatened species is any species that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

3.2.2 Affected Environment

Actions associated with Alternative B would occur within the Eglin Main Base housing area. The proposed and alternative sites are generally characterized as Landscaped/Urban. Native habitat has been modified by past activities, including construction and demolition of housing units.

The Alternative B site consists of mostly scattered pine and oak trees in the northern portion bordering Foster Dr., where construction would occur. The limited number of trees in this area results from previous occurrence of housing units at the site. Groundcover consists of grass and

possibly forbs. A more heavily wooded band occurs south of the potential construction zone, and beyond this band the habitat is more open, although not as much so as the roadside area. Soils consist of sandy sediments that appear to be fairly well-drained.

Topography generally slopes south/southeast, away from Foster Drive. A variety of small mammals, reptiles, and other wildlife could utilize the site, although its location within the developed Eglin housing area decreases the overall habitat value. Florida black bears (*Ursus americanus floridanus*) have been documented within a mile north and east of the site (USAF, 2011). Trees, large shrubs, and other vegetation at the site could provide habitat for birds, including migratory birds. Longleaf pine (*Pinus palustris*), which is used by the red-cockaded woodpecker (RCW) (*Picoides borealis*), occurs at the site. The RCW is listed as endangered under the Endangered Species Act of 1973 (ESA).

The Alternative C site is similar to the Alternative B site with scattered occurrence of pine, oak, and magnolia trees at the portion nearest Hatchee Rd., and a heavily wooded area southwest of this. The semi-open portion of this site is also due to past occurrence of housing units. Groundcover at the roadside portion appears to consist mainly of grasses. Soils are also similar, consisting of apparently well-drained, sandy sediment. A small portion of this site (0.6 acre in the southern corner) occurs within the Sandhills ecological association. This habitat is characterized by open, savanna-like structure with a moderate-to-tall canopy of longleaf pine, a sparse mid-story of oaks and other hardwoods, and a diverse groundcover comprised mainly of grasses, forbs, and low-stature shrubs. However, construction activities would not extend into this area.

3.2.3 Environmental Consequences

3.2.3.1 Alternative A: No Action

There would be no significant impacts to biological resources under Alternative A. The TLF would not be constructed, the degree of human presence would not change, no habitat would be disturbed, and no trees would be removed. Wildlife use of the area would not change compared to current conditions.

3.2.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)

There would be no significant impacts to biological resources under Alternative B. Construction of the TLF would result in loss of a total of approximately 45,000 ft² (approximately one acre) of habitat at the proposed site, although human presence and building placement would likely deter wildlife from using most of the semi-open habitat bordering Foster Drive. The more heavily wooded and semi-open portions south of the construction zone would not be disturbed, so that much of the habitat available to birds and other wildlife would remain intact. Most of the disturbed habitat would be grasses and possibly forbs, and loss of this habitat would not be significant to biological resources. The site occurs within a fragmented vegetated portion of the existing developed housing area, and likely does not function as important wildlife habitat on the base.

Specific building location(s) and orientation(s) would be designed to minimize the loss of trees, particularly longleaf pines. Only a small percentage of the original old growth longleaf pine forest remains on Eglin. In addition, longleaf pines are preferred habitat for the RCW. However, there are no RCW active or inactive trees at the site (USAF, 2011).

Due to the semi-open nature of portions of the site, presence of grasses and forbs, and occurrence of sandy soil, it is possible that gopher tortoises (*Gopherus polyphemus*) could inhabit the area. This species is listed as threatened by the State of Florida and is a Candidate Species under the ESA. Gopher tortoises excavate burrows, which may in turn be used by other species such as the ESA-listed eastern indigo snake (*Drymarchon corais couperi*). However, no tortoises were found during a site survey conducted in September 2011. An additional survey would be conducted at least 30 days prior to the beginning of construction to ensure no tortoises have moved into the area. Any tortoises found in areas potentially impacted by construction activities would be relocated, and burrows would be investigated to determine the presence of indigo snakes or other wildlife. Burrows would be collapsed after tortoise relocation to deter potential occupation by additional tortoises or other wildlife.

3.2.3.3 Alternative C: Memorial Trail and Hatchee Rd.

There would be no significant impacts to biological resources under Alternative C. Potential impacts to the alternative TLF site would be similar to those of the preferred site, Alternative B. Construction would result in loss of a total of approximately 1 acre of habitat, although human presence and building placement would likely deter wildlife from using most of the semi-open habitat bordering Hatchee Rd. The heavily wooded portion of the site southwest of the construction zone would not be disturbed, so that much of the habitat available to birds and other wildlife would remain intact. Most of the disturbed habitat would be grasses and possibly forbs. Loss of this habitat would not be significant because the site occurs within a fragmented vegetated portion of the existing developed housing area, and likely does not function as important wildlife habitat on the base.

Specific building location(s) and orientation(s) would be designed to minimize the loss of trees, particularly longleaf pines. There are no RCW active or inactive trees at the site (USAF, 2011). Based on habitat characteristics, gopher tortoises, which are Candidate Species under the ESA, could possibly occur at the site. Gopher tortoise burrows may also be used by other species, including the ESA-listed eastern indigo snake. A site survey would be conducted at least 30 days before construction begins. Any tortoises found in areas potentially impacted by construction activities would be relocated, and burrows would be investigated to determine the presence of indigo snakes or other wildlife. Burrows would be collapsed after tortoise relocation to deter potential occupation by additional tortoises or other wildlife.

3.3 HAZARDOUS MATERIALS AND WASTE

3.3.1 Definition

This section describes the affected environment associated with hazardous materials, hazardous wastes, Environmental Restoration Program (ERP) sites, and solid waste at the construction site.

The terms “hazardous materials” and “hazardous waste” refer to substances defined as hazardous by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Solid Waste Disposal Act (SWDA), as amended by the Resource Conservation and Recovery Act (RCRA). In general, hazardous materials include substances that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may present substantial danger to public health or the environment when released into the environment. Hazardous wastes that are regulated under RCRA are defined as any solid, liquid, contained gaseous, or semisolid waste, or any combination of wastes that either exhibit one or more of the hazardous characteristics of ignitability, corrosivity, toxicity, or reactivity, or are listed as a hazardous waste under 40 CFR Part 261. Executive Order (EO) 13148, (Greening the Government Through Leadership in Environmental Management, 26 April 2000), requires federal agencies to minimize the generation of hazardous waste and to comply with the Emergency Planning and Community Right-to-Know Act (EPCRA), the initial catalyst for the creation of the Hazardous Materials Management Process (HMMP).

The ERP is a DoD program to identify, characterize, and remediate environmental contamination from past activities at DoD installations.

Air Force Policy Directive (AFPD) 32-70 and Air Force Instruction (AFI) 32-7000 series incorporate the requirements of all Federal regulations, other AFIs, and Department of Defense (DoD) directives for the management of hazardous materials, hazardous wastes, and special hazards (USAF, 1994).

3.3.2 Affected Environment

The 96th Civil Engineer Group, Environmental Management Division (96 CEG/CEV) is responsible for the implementation of hazardous material and waste plans at Eglin AFB. In conformance with the policies established by AFPD 32-70, the 96 CEG/CEV has developed procedures and plans to manage hazardous wastes, hazardous materials and ERP sites on Eglin AFB.

Hazardous Materials

Throughout the U.S. Air Force, hazardous materials are managed in accordance with AFI 32-7086. This instruction establishes procedures and standards that govern the management of hazardous materials. It applies to all U.S. Air Force personnel who authorize, procure, issue, use, or dispose of hazardous materials, and to those who manage, monitor, or track any of those activities (USAF, 2004). The 96 CEG/CEV manages hazardous materials in accordance with AFI 32-7086.

Hazardous materials are used throughout the installation for various functions, including aircraft refueling, maintenance, and washing; vehicle maintenance and washing; petroleum, oil, and lubricant distribution and management; facilities maintenance and repair; maintenance of ground support equipment; and aircraft support operations. Hazardous materials used in these functions include fuels and lubricating oils, solvents, paints and thinners, antifreeze, deicing compounds, and acids. At Eglin AFB, hazardous materials are managed through a centralized Base Hazardous Material (HAZMAT) Pharmacy using a system that tracks the inventory and

acquisition of hazardous materials along with hazardous waste disposal and health and safety information.

Hazardous Wastes

Hazardous wastes are managed through the HWMP. This Plan is in accordance with AFI 32-7042, Solid and Hazardous Waste Compliance. The HWMP provides guidance to Eglin AFB personnel (including tenants) on the handling, storage, and disposal of hazardous materials and this Plan would implement the “cradle-to-grave” management control of hazardous waste as mandated by USEPA (USAF, 2009).

Eglin AFB is regulated as a large quantity generator. Satellite accumulation points are utilized throughout the installation for the accumulation of hazardous wastes.

Environmental Restoration Sites

The ERP, formerly known as the Installation Restoration Program, provides a process to evaluate past disposal sites, control the migration of contaminants, assess potential hazards to human health and the environment, and conduct environmental restoration activities. The ERP requires each DoD installation to identify, investigate, and remediate hazardous waste release and disposal sites. Figure 3-1 details the ERP sites within the vicinity of the project area for Alternative B and Alternative C at Eglin AFB.

3.3.3 Environmental Consequences

3.3.3.1 Alternative A: No Action

Under Alternative A, the No Action Alternative, the Eglin Temporary Lodge would not be constructed, and would therefore have no impact on HAZMAT/Hazardous Waste Management or solid waste.

3.3.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)

Under Alternative B, the Proposed Action, construction activities may require the use of hazardous materials, and hazardous waste may be generated. However, Alternative B would not increase hazardous material or hazardous waste significantly. As the proper handling, use and disposal of hazardous materials and waste, including materials such as sealant and surface treatment substances used for parking apron concrete restoration, are routine at Eglin AFB, personnel will adhere to the present HWMP tracking and reporting requirements. As a result, the Air Force does not anticipate any harm to the environment from hazardous material and hazardous waste generated from Alternative B.

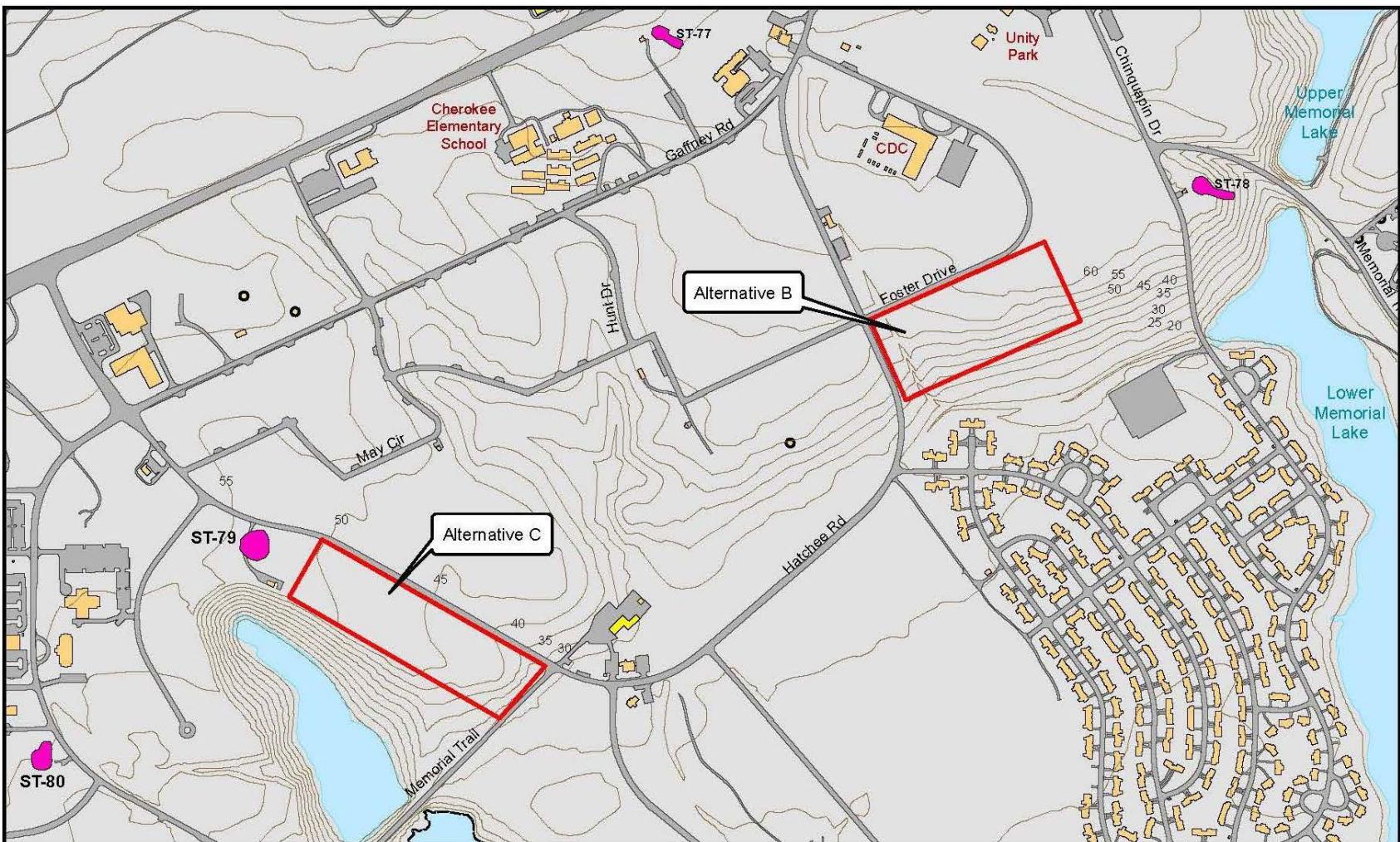


Figure 3-1. ERP Sites Near Alternative B and Alternative C

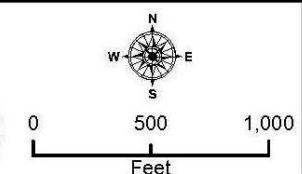
for the Construction of a Temporary Assessment
Eglin Air Force Base, FL

03/01/2012

Page 3-10

LEGEND

Project Location	ERP Site (Closed)
Waterbody	Hazardous Waste Accumulation Site
Road Area	
Existing Structure	
Eglin Main Base	



**Construction of a Temporary
Lodging Facility, Eglin AFB
Environmental Assessment**

9/16/2011

The USEPA provides guidelines for estimating solid waste resulting from construction. Based on the analysis of empirical data, it is estimated that during construction of residential facilities, an average of 4.39 pounds (lbs) of debris is generated for each square foot constructed (USEPA, 2009). This estimate accounts for the waste generated from the construction of both buildings and impervious surfaces, and does not differentiate. This formula has been applied to each of the alternatives to estimate the amount of solid waste each would be expected to produce. Applying this calculation to the Proposed Action, the 77,000 square feet of building and impervious surface construction would generate 168.6 tons of solid waste. According to public data published by FDEP, 278,014 tons of municipal solid waste was generated annually in Okaloosa County during calendar year (CY) 2008, or 1.4 tons per person (FDEP, 2010).

Solid waste would be disposed of as part of the construction agreement with the building contractor. Following established plans and BMPs, construction debris would be recycled to the greatest extent feasible. Inert debris (concrete, asphalt, dirt, brick, and other rubble) would be incorporated into reuse and recycling programs when possible. In the 1998 report by the USEPA, Characterization of Building-Related Construction and Demolition Debris (C&D) in the United States, the state of California estimated that for nonresidential C&D projects, 57 percent of inert waste was recycled (USEPA, 1998). While this figure may not be representative of the recyclable potential from Eglin AFB actions, it is reasonable to assume that a significant portion of the debris would be recycled and reused. The construction debris produced from Alternative B is well within the capacity for solid waste disposal and recycling, and the Air Force does not anticipate any adverse impacts from the Proposed Action.

As discussed in Section 3.3.2, Eglin AFB maintains a proactive ERP to identify, classify, and remediate environmental contamination. As shown in Figure 3-1, ERP Sites Near Alternative B and Alternative C, there are two closed ERP sites located in the vicinity of the location for Alternative B. However, neither of these sites would be adversely affected by the construction of the TLF at Eglin AFB as they are both far enough away from the potential construction sites.

3.3.3.3 Alternative C: Memorial Trail and Hatchee Rd.

Under Alternative C, the location for the Eglin Temporary Lodging would change, but the construction footprint would remain identical to that of Alternative B, the Proposed Action. Consequently, the same amount of estimated construction debris is anticipated, (168.6 tons). Potential hazardous waste would also be unchanged. The Air Force does not anticipate any adverse impacts to the HAZMAT/Hazardous Waste Program or construction debris under Alternative C.

As shown in Figure 3-1, there are two closed ERP sites located in the vicinity of Alternative C, but neither one would be affected by potential construction under Alternative C.

3.4 NOISE

3.4.1 Definition

Noise is defined as any unwanted sound. Defining characteristics of noise include sound level (amplitude), frequency (pitch), and duration. Each of these characteristics plays a role in determining a noise's intrusiveness and level of impact on a noise receptor. The term "noise receptor" is used in this document to mean any person, animal, or object that hears or is affected by noise.

Sound levels are recorded on a logarithmic decibel scale, reflecting the relative way in which the ear perceives differences in sound energy levels. A sound level that is 10 dB higher than another would normally be perceived as twice as loud while a sound level that is 20 dB higher than another would be perceived as four times as loud. Under laboratory conditions, the healthy human ear can detect a change in sound level as small as 1 dB. Under most nonlaboratory conditions, the typical human ear can detect changes of about 3 dB.

Sound measurement may be further refined through the use of frequency "weighting." The normal human ear can detect sounds that range in frequency from about 20 hertz (Hz) to 20,000 Hz (Federal Interagency Committee on Noise [FICON], 1992). However, all sounds throughout this range are not heard equally well. In "A-weighted" measurements, the frequencies in the 1,000–4,000-Hz range are emphasized because these are the frequencies heard best by the human ear. Sound level measurements weighted in this way are termed "A-weighted decibels" (dBA). Unless otherwise noted, all sound levels referenced in this EA can be assumed to be A-weighted.

Typically, sound levels at any given location change constantly. For example, the sound level changes continuously when an aircraft flies by, starting at the ambient (background) level, increasing to a maximum when the aircraft passes closest to the receptor, and then decreasing to ambient levels when the aircraft flies into the distance. The term "maximum sound level," or L_{max} , represents the sound level at the instant during an aircraft overflight when sound is at its maximum.

Annoyance is the most common effect of aircraft noise on humans. Aircraft noise often interferes with activities such as conversation, watching television, using a telephone, listening to the radio, and sleeping. This interference often contributes to individuals becoming annoyed. Whether or not an individual becomes annoyed by a particular noise is highly dependent on emotional and situational variables of the listener as well as the physical properties of the noise (Federal Aviation Administration [FAA], 1985). However, when assessed over long periods of time and with large groups of people, a strong correlation exists between the percentage of people highly annoyed by noise and the time-averaged noise exposure level in an area (Finegold et al., 1994). This finding is based on surveys of groups of people exposed to various intensities of transportation noise. A generalized categorization of noise-induced annoyance can be found in Table 3-4.

Table 3-4. Relationship Between Noise Level and Percent of Population Highly Annoyed

Criteria	Noise Level		
A-Weighted Average Noise Levels (Continuous Noise)	< 65 dB	65-75 dB	> 75 dB
C-Weighted Average Noise Levels (Impulsive Noise)	< 62 dBC	62-70 dBC	> 70 dBC
Unweighted Peak Noise Levels (Small Arms Noise)	< 87 dB _P	87-104 dB _P	> 104 dB _P
Percent of Population Highly Annoyed	< 15%	15%-39%	> 39%

Source: United States Army Center for Health Promotion and Preventive Medicine (USACHPPM), 2005; U.S. Army, 2007

< = less than; > = greater than; dB = decibels; dBC = C-weighted decibels; dB_P = P-weighted decibels

Note: The primary noise metric used by the U.S. Army to describe small-arms noise is PK_{15(met)}.

Based on numerous sociological surveys and recommendations of federal interagency councils, the most common benchmark referred to is the Day/Night Average Sound Level (DNL) of 65 dBA (Table 3-4). The DNL is a measure of the cumulative noise exposure in a community, with a 10 dB addition to nighttime (10:00 PM to 7:00 AM) noise levels. This annual average threshold is often used to determine residential land use compatibility around airports, highways, or other transportation corridors.

The USEPA recommends that, to protect public health with an adequate margin of safety, exterior noise levels should not exceed 55 dB DNL, interior noise levels should not exceed 45 dB DNL, and sleeping areas should be less than 45 dB DNL in noise-sensitive locations (USEPA, 1974). The Federal Interagency Committee on Urban Noise (FICUN) took these recommendations into consideration when developing its recommendations on compatibility of land uses with noise impacts (FICUN, 1980). These recommendations have been adopted, with minor modifications, by the DOD (DoDI 4165.57).

The Air Force has requirements for housing built in areas with noise levels above 65 dB DNL: soundproofing measures must be incorporated in the design and construction of the housing to achieve an outdoor-indoor noise level reduction of at least 25 dB in the 65 to 70 dB DNL range and 30 dB in the 70 to 75 dB DNL range. Standard construction provides a noise level reduction of 20 dB; therefore, construction requirements of 5 to 10 dB over standard construction with mechanical ventilation and closed windows year-round would reduce noise effects to residents in noise exposure areas (U.S. Air Force, 2004). Studies indicate a tendency for humans to habituate to regularly occurring nighttime noise over time, eventually reducing susceptibility to noise-induced sleep disturbance (Fidell et al., 1995; Parsons et al., 1995; Kryter, 1984).

Noise is often viewed as being one of a number of general biological stressors. Some studies have indicated that excessive exposure to intense noise might contribute to the development and aggravation of stress-related conditions such as high blood pressure, coronary disease, ulcers, colitis, and migraine headaches. Other studies have found no correlation between noise and various health conditions. Nonauditory health effects of noise are not well established at this time, and are likely only experienced at extremely high noise levels (USEPA, 1981).

A considerable amount of data on noise-related hearing loss has been collected and analyzed. It is well established that continuous exposure to high noise levels (such as 8 hours of continuous exposure of 85 dB) will damage human hearing (USEPA, 1974).

3.4.2 Affected Environment

Eglin AFB is an active base with noise from both military and residential activities. Common sounds at Eglin AFB are aircraft operations, construction activities, traffic sounds, munitions use (bombs and small arms) at nearby ranges, as well as residential activities such as lawn mowing. With the implementation of the proposed F-35 beddown, new noise contours from the F-35 aircraft may affect residential areas at Eglin AFB. Facilities that would be located in areas over 65 dBA would require noise abatement in the design and construction.

Transient Lodgings may be located in noise zones 65 to 79 dB with measures taken to achieve NLR outdoor to indoor which incorporates noise attenuation (reduction) measures into the design and construction of the structures, according to the *AICUZ Program Manager's Guide* (Air Force Handbook [AFH] 32-7084). Noise levels less than 75 dB were determined acceptable for the selection of possible locations for the TLF.

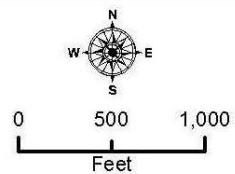
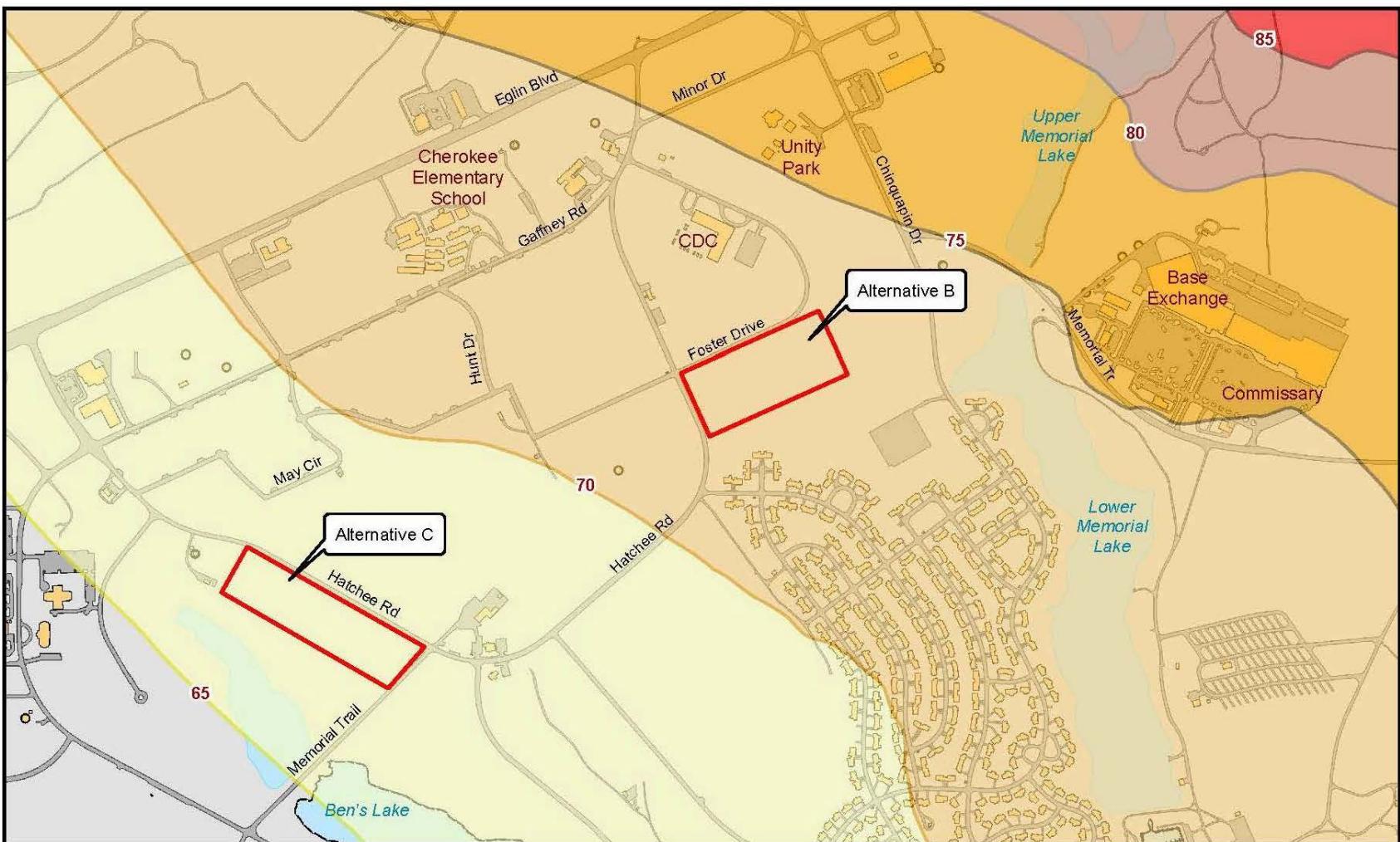
The Alternative B location is in an undeveloped area with residential areas approximately 200 feet south and northwest of the proposed site. The location of the TLF for Alternative C would be near to other residential areas to the north (approximately 600 feet), west (approximately 800 feet), and southeast (approximately 300 feet). Sensitive receptors may be affected by construction noise at nearby houses. With implementation of the Base Realignment and Closure (BRAC) action, new noise contours from the F-35 aircraft may affect the proposed TLF at Eglin AFB. Figure 3-2 illustrates the level of noise expected at each of the proposed sites for the TLF. Alternative B would be located in the 70 to 75 dBA contour and Alternative C location would be in the 65 to 70 dBA contours.

Based on the Eglin Base Realignment and Closure Final Environmental Impact Statement Record of Decision, the noise contours from F-35 aircraft reported as the No Action Alternative of the Supplemental Environmental Impact Statement shows Alternative B would be located in the 70 to 75 dBA contours and the Alternative C site would be in the 65 to 70 dBA contours.

3.4.3 Environmental Consequences

Although the noise environments at Eglin AFB are dominated by aircraft noise, aircraft overflights are intermittent in nature.

Since construction activities would occur near residential areas, construction noise is evaluated in this EA. Construction noise was evaluated using Roadway Construction Noise Model (RCNM) version 1.1, the Federal Highway Administration's (FHWA) standard model for the prediction of construction noise (U.S. Department of Transportation [USDOT], 2006). RCNM has the capability to model types of construction equipment that would be expected to be the dominant construction-related noise sources associated with this action. All construction noise analyses were assumed to make use of a standard set of construction equipment. Construction noise is expected be limited to normal working hours (7:00 AM to 5:00 PM). Construction noise impacts are quantified using the 8-hour noise level equivalent ($L_{eq[8]}$) noise metric as calculated on an average busy working day during construction.



Construction of a Temporary Lodging Facility, Eglin AFB Environmental Assessment

9/16/2011

Figure 3-2. Temporary Lodging Facility Alternative Locations with Aircraft Noise Contours
for the Construction of a Temporary Lodging Facility
Eglin Air Force Base, FL

03/01/2012

Final Environmental Assessment

Page 3-15

Construction noise was evaluated for one construction site and may be applied to each of the sites individually for potential negative effects to sensitive receptors in the vicinity of the construction site. Noise levels were evaluated for receptors at 100-foot increments from the construction equipment. Noise abatement measures were not considered in this analysis, as it is unknown if any shielding between the equipment and possible receptors would be utilized; this provides for a more conservative analysis. The same types of equipment are assumed to be used on each construction site. Noise levels above 65 dBA would be considered significant impacts. Summary of noise levels are shown in Table 3-5. Noise levels were calculated as an equivalent noise level (average acoustic energy) over an 8-hour period ($L_{eq(8)}$). The maximum sound level (L_{max}) shows the sound level of the loudest piece of equipment, which is generally the driver of the $L_{eq(8)}$ sound level.

Table 3-5. Construction Noise

Receptor Distance (feet)	Max Sound Level L_{max} (dBA)	Equivalent Sound Level (dBA) $L_{eq(8)}$
100	79.0	81.3
200	73.0	75.3
300	69.4	71.8
400	66.9	69.3
500	65.0	67.3
600	63.4	65.7
700	62.1	64.4
800	60.9	63.2
900	59.9	62.2
1000	59	61.3

The construction equipment with the maximum sound level (L_{max}) is the grader. Receptors located at distances greater than to 700 feet would experience an 8-hour averaged noise level less than 65 dBA.

3.4.3.1 Alternative A: No Action

No new construction would take place under Alternative A, the No Action Alternative. Thus, there would be no change to the current noise levels. The site would continue to have typical noise levels of an active air force base: vehicle traffic, aircraft overflight, use of munitions for testing and training purposes, and natural sounds of wind, birds, and insects. No adverse impacts would occur with the implementation of Alternative A.

3.4.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)

Alternative B would involve construction of the TLF in a location that is currently undeveloped with trees between the site and the nearest residential area (approximately 200 feet) to the south. Construction activities would cause increased noise to the area. Houses located closest to the site would be subject to construction noise of 75.3 dBA outdoors throughout the day while construction activities are occurring. Normal housing construction is expected to provide a noise

level reduction of 20 dB, thus indoor noise levels would be 65 dB from the construction activities (USAF, 2004). In general, residents are acclimated to typical active base noises (i.e., aircraft, ordnance training/testing, etc); however, residents may be annoyed by the construction noise. To mitigate this, construction activities could be limited to normal working hours, thus minimizing annoyance. The construction equipment would not cause sufficient noise levels to adversely affect the health of nearby receptors. The trees located between the proposed site and the residential area would act as a buffer, increasing the noise attenuation (reduction) between the site and receptors. No adverse impacts from construction noise are expected for Alternative B.

The site location for the TLF would be in a 70 to 74 DNL, which would require that noise level reduction should be incorporated into the building codes for temporary lodging (AFH 32-7084).

3.4.3.3 Alternative C: Memorial Trail and Hatchee Rd.

Noise from the construction of the TLF at the Alternative C site may affect receptors located in residential areas to the north, west, and southeast. The nearest residents, to the southeast (300 feet) would be exposed to outdoor noise levels of 71.8 dBA over an 8-hour period. Residents to the north (600 feet) and west (880 feet) would be exposed to 65.7 dBA and 63.2 dBA over an 8-hour period, respectively. There is some vegetation between the receptors and the chosen site which would serve as a buffer and would decrease the amount of noise at the receptor sites. The receptors to the southeast would be exposed to the highest noise levels due to proximity to the site. Receptors indoors are expected to experience noise levels less than 65 dBA since normal housing construction reduces noise levels by approximately 20 dB. No adverse impacts from construction noise are expected for the Alternative C action.

The site location would fall under the 65 to 70 DNL aircraft noise contours and would require that noise level reduction should be incorporated into the building design (AFH 32-7084).

3.5 SAFETY

3.5.1 Definition

Safety is defined as any issue with a potential to increase health risks to military or DoD civilian personnel, developer personnel, or the general public. This section addresses the potential safety concerns associated with the Proposed Action, and includes fire and security forces response as well as AT/FP requirements and considerations.

A variety of Air Force regulations address or govern safety, including AFI 91-301, Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Standards. Under Title 29 CFR 1960 series, Occupational Safety and Health Administration (OSHA) standards do not apply to military-unique workplaces, operations, equipment, and systems. However, according to DoD instruction, they will be followed insofar as is possible, practicable, and consistent with military requirements. AFOSH standards apply unless specifically exempted by variance or determined to be an acceptable deviation. Safety does not consider the potential for encountering unexploded ordnance (UXO) during construction/renovation activities, as records and interviews indicate no ordnance has ever been expended or stored in Eglin Military Family

Housing (MFH) areas or in currently undeveloped areas addressed under the alternatives (U.S. Air Force, 2011).

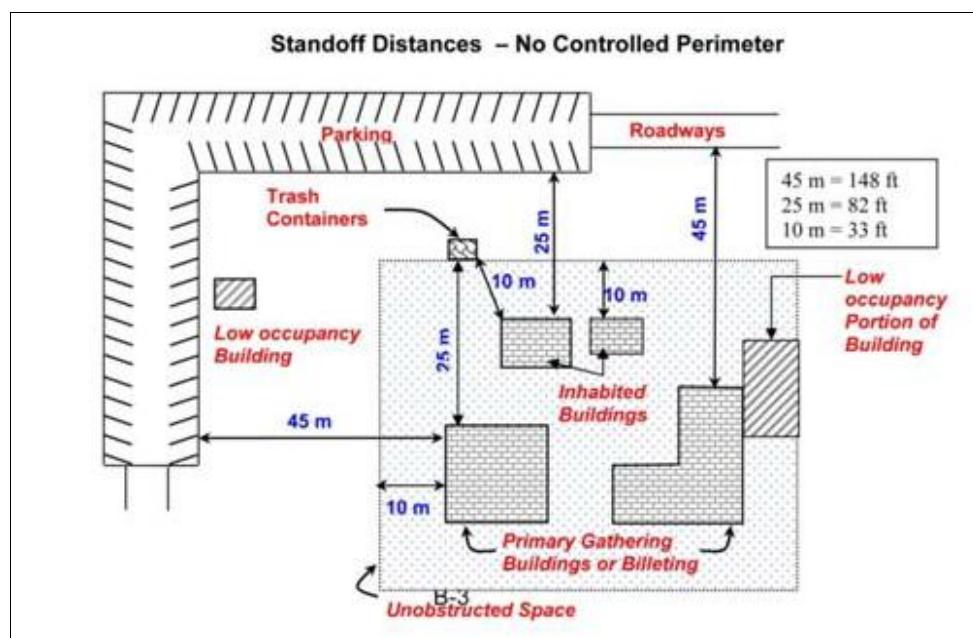
3.5.2 Affected Environment

Fire and Security Response: As a lodging facility for transient military families, safety and security is critical. Eglin Security Forces must be able to rapidly respond to potential emergencies in the vicinity of the temporary lodging facility. Similarly, it is critical that Fire Department response time is minimal.

Anti-Terrorism/Force Protection (AT/FP): The DoD Minimum Antiterrorism Standards for Buildings (Unified Facilities Criteria [UFC] 4-010-01, 8 October 2003, including change 1, 22 January 2007) manual establishes standards for vehicle separation from structures. The intent of these standards is to minimize the possibility of mass casualties in buildings or portions of buildings. Design of new buildings on base must provide minimum DoD anti-terrorism standard standoff requirements, as illustrated in Figure 3-3.

Construction of new buildings must comply with the standards outlined in UFC 4-010-01, which for this type of building mandate a conventional construction standoff distance of 45 meters (148 feet), and a minimum standoff distance of 25 meters (82 feet) (DoD, 2007).

Job Site Safety: Day-to-day construction activities conducted by personnel at Eglin AFB are performed in accordance with applicable Air Force safety regulations, published Air Force technical orders, and standards prescribed by AFOSH requirements. Developers working on the installations are required to prepare appropriate job site safety plans explaining how job safety will be assured throughout the life of the project. Developers are also required to follow applicable OSHA requirements.



Source: DoD, 2007

Figure 3-3. AT/FP Standoff Distances – No Controlled Perimeter

3.5.3 Environmental Consequences

3.5.3.1 Alternative A: No Action

Under Alternative A, the Eglin Temporary Lodge would not be constructed, and would therefore have no impact on safety.

3.5.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)

Fire and Security Response: Eglin Security Forces have ready access to the area of Alternative B, and they routinely patrol in the vicinity. Fire Department response time would be similarly minimal, as a fire station is located less than half a mile from the Alternative B site. This location was once occupied by MFH, so emergency response services in the area are well-established. Additionally, the design for the facility would include a dedicated fire access road, ensuring fire fighting access from all sides of the complex (Daly, 2011). The Air Force anticipates no adverse impacts as a result of Alternative B.

Anti-Terrorism/Force Protection (AT/FP): Construction of the new TLF under Alternative B would comply with the mandatory standards outlined in UFC 4-010-01, which for this type of building is a conventional construction standoff distance of 45 meters (148 feet), and a minimum standoff distance of 25 meters (82 feet) (DoD, 2007). The Air Force anticipates no adverse impacts as a result of Alternative B.

Job Site Safety: Throughout the construction process, safety would remain a high priority. Through adherence to the applicable safety regulations identified in Section 3.3.1, as well as by following established best management practices (BMP), a high standard would be maintained. The Air Force does not anticipate any adverse impacts as a result of Alternative B.

3.5.3.3 Alternative C: Memorial Trail and Hatchee Rd.

Under Alternative C, the environmental consequences are almost identical to those described for Alternative B. The only notable difference affecting the potential impacts to safety is the Fire Department response time at the Alternative C location. This location is roughly twice as far from the Fire Department, however it is still less than a mile away, equating to rapid response time. The Air Force does not anticipate any adverse impacts as a result of Alternative C.

3.6 SOCIOECONOMICS

3.6.1 Definition

Socioeconomic resources are defined as the basic attributes associated with human activities. The construction of a TLF would involve construction of housing for military personnel, civilians, military retirees, and dependents at Eglin AFB. Therefore, the following resources are addressed under socioeconomics as the indicators that could potentially be impacted by the action: population and housing.

Socioeconomics does not have an applicable regulatory setting. NEPA provides no specific thresholds of significance for socioeconomic impact assessment. Significance varies, depending on the setting of the Proposed Action (40 CFR 1508.27[a]), but 40 CFR 1508.8 states that indirect effects may include those that are growth-inducing and others related to inducing changes in the pattern of land use, population density, or growth rate.

3.6.2 Affected Environment

Population

The population on Eglin AFB as of April 2011 totaled 64,760 persons including 46,772 retirees/dependents and 17,988 workforce personnel. Personnel employed at Eglin AFB include all individuals required to accomplish base missions at Eglin Main, including activities associated with Eglin Main, the auxiliary fields (with the exception of Hurlburt Field), and land and water test areas. Table 3-6, Eglin AFB Population and Workforce Summary, April 2011, shows the most recent population summary on Eglin AFB.

Future base population at Eglin is anticipated to fluctuate significantly over the next several years with an overall increase of base strength by FY 2016. The increase in population will have a direct impact on PCS activity and TLF demand.

Table 3-6. Eglin AFB Population and Workforce Summary, April 2011

	Officers	Enlisted	Civilian	Total
Air Armament Center (AAC) population	945	2,986	3,565	7,496
Air Force Tenants	577	1,701	1,121	3,399
Other Tenants	250	1,798	1,219	3,267
Contractors				3,826
Workforce Total				17,988
Retirees				13,593
Dependents				33,179
Total Population Supported				64,760

Source: AAC, 2011

Housing

Currently, there are 14 buildings in two TLF complexes at Eglin AFB. These include the Waterside Inn Complex and the Cove Inn Complex. The Waterside Inn consists of six buildings, Buildings 746–751, which includes 10 three-bedroom units. The Waterside Inn TLF Complex is in good condition and suitable for continued long term use as TLF units. The Cove Inn consists of eight buildings, Buildings 724–731, which include 14 one-bedroom units, 32 two-bedroom units, and one three-bedroom unit. The Cove Inn TLF Complex is in poor condition and is not considered suitable for long term use as TLF units. TLF units can be used by active duty on leave, retirees or temporary duty (TDY) personnel. The units are on a space-available basis, although inbound and outbound PCS personnel have priority and may stay up to 30 days.

Several lodging facilities and hotels are available in the area surrounding Eglin AFB that provide extended stay accommodations. However, there is a limited supply of acceptable extended stay

hotels within an easy commute to Eglin AFB, and additionally, many do not provide the same level of service or quality as under U.S. Air Force guidelines for TLF (U.S. Air Force 2010).

3.6.3 Environmental Consequences

3.6.3.1 Alternative A: No Action

Under Alternative A, the construction of a new TLF would not be implemented. Under this alternative, there would not be an adequate supply of temporary lodging units that meet U.S. Air Force quality standards and future demand. Thus, military personnel, retirees, and other users would be required to find TLFs off-base. This could result in adverse impacts for the Eglin AFB community and personnel on the base.

3.6.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)

Under Alternative B, the construction of the TLF would result in beneficial impacts to the Eglin AFB community and personnel. There would be a minor and temporary benefit to socioeconomic resources during the construction phase from the use of local labor and supplies. Benefits associated with construction activities are anticipated to be minor and temporary, lasting only for the duration of the construction phase.

During the operational phase, the TLF would have capacity for up to 32 two-bedroom units. Assuming each unit could accommodate a family of five and each incoming family does not currently reside on base, the maximum total change in population during a 1-month period could be up to 160 persons. This represents approximately less than a 1 percent change of the total population currently supported by Eglin. Thus, under Alternative B there would be a minor and negligible change in population. No changes to employment are anticipated under this alternative because no new jobs would be created. However, businesses on base could experience temporary and minor benefits from additional expenditures from TLF users that would otherwise have to locate accommodations off-base.

3.6.3.3 Alternative C: Memorial Trail and Hatchee Rd.

Potential impacts to socioeconomic resources under Alternative C are similar to those as described under Alternative B.

3.7 UTILITIES

3.7.1 Definition

The discussion of utilities in place at Eglin AFB includes all infrastructure systems and assets including electrical distribution, communication, natural gas, potable water for human consumption, nonpotable water for fire suppression, and wastewater disposal.

3.7.2 Utilities

The areas of Alternative B and Alternative C are both located in land formerly occupied by family housing, which was recently demolished. However, all utility and infrastructure remains readily available. Figure 3-4 illustrates the utility infrastructure available in the area for both Alternative B and Alternative C.

Electricity

Gulf Power provides electricity to Eglin AFB, however the Air Force owns and operates the entire electric system on the base. Gulf Power owns and operates the Eglin West Gate substation. Eglin used 18,490,723 kilowatt-hours (kWh) of power during 2009 (Continental Group, 2010). As shown in Figure 3-4, there are several electrical supply lines in the vicinity of the proposed TLF.

Communication

Communications systems include telephone, internet, and television connectivity. The availability of communications systems in the area of the proposed TLF is extensive, as the area was once occupied by base housing.

Natural Gas

Natural gas is provided to Eglin AFB by the Okaloosa Gas District, which is the primary natural gas provider to Okaloosa County. As shown in Figure 3-4, natural gas lines are readily available in the areas of Alternative B and Alternative C.

3.7.2.1 Potable Water

Potable water systems in Florida are regulated by FDEP, which along with the Florida Safe Drinking Water Act, ensures compliance with standards identified in the Safe Drinking Water Act (42 United States Code [USC] 201, 300 *et seq.*) and the National Primary Drinking Water Regulations. The FDEP classifies a public water system as one with at least 15 service connections or regularly serving 25 individuals per day for at least 60 days of the year. The Eglin Temporary Lodge would be considered a public water system and would therefore comply with all state regulations.



Construction of a Temporary Lodging Facility, Eglin AFB Environmental Assessment

9/16/2011

LEGEND

Project Location	Water Supply Line
Waterbody	Natural Gas Line
Road Area	Wastewater Line
Existing Structure	Storm Sewer Line
Eglin Main Base	Electrical Supply Line



N
W
E
S

0 500 1,000
Feet

The Eglin Temporary Lodge would be located in an area formerly occupied by Family Housing, which draws water from a series of 18 potable water system (PWS) wells located throughout the base. Although the Eglin TLF would not need a new water well, it will require a water main extension permit, which would be coordinated by the 96th Civil Engineer Group, Environmental Compliance Division (CEG/CEV) (Dykas, 2011) Table 3-7 identifies the permitted and actual potable water use.

Table 3-7. Potable Water System Usage Associated with Eglin Housing Area

Water Supply System	Permitted Average Daily Limit (gal/day)	Permitted Max Daily Limit (gal/day)	Permitted Max Monthly Limit (gal/month)	2010 Average Daily Rate (gal/day)	2010 Average Monthly Rate (gal/month)
Eglin Housing	1.92 million	4.99 million	120 million	713,576	21.7 million

Source: Adams, 2011a

3.7.2.2 Nonpotable Water

The term nonpotable water in this instance refers to the availability and proximity to the site of water systems used for fire suppression. The network of nonpotable water is extensive in the area of the proposed TLF, as the area was once occupied by base housing.

3.7.2.3 Wastewater Disposal

Wastewater is water that has been used and contains suspended or dissolved waste material. Examples of these waste materials may include soaps and detergents, food waste, human waste, etc. The wastewater must be treated at a wastewater treatment plant (WWTP) before it can be released into waterways. The Clean Water Act (CWA) (33 USC 1151 *et seq.*) is the federal legislation governing wastewater. Regulations are implemented through the NPDES permitting system (40 CFR 122), general pretreatment programs (40 CFR 403), and categorical effluent limitations, including limitations for pretreatment of direct discharge (40 CFR 405 *et seq.*).

State regulations include the Florida Air and Water Pollution Control Act (Florida Statutes, Title 28 Section 403), which governs industrial and domestic wastewater discharges in the state. The FDEP has designated the Northwest Florida Water Management District (NFWFMD) as the local enforcement authority for state and federal regulations. The state regulations are implemented through FAC 62-600 through 62-660, and they establish water quality standards, regulate domestic wastewater facility management and industrial waste treatment, establish domestic WWTP monitoring requirements, and regulate stormwater discharge. Due to the use of land made available by Eglin for spray irrigation, there are no permitted discharges of wastewater effluent to the Choctawhatchee Bay.

Wastewater at Eglin AFB is processed at five treatment plants owned and operated by the installation. Permitting and compliance management is performed by the 96th CEG/CEV. The Plew Heights WWTP is the facility that serves the area of the proposed Eglin TLF. Table 3-8 summarizes the capacity and usage of the Plew Heights WWTP.

Table 3-8. Wastewater Treatment System Associated with the Project Areas

WWTP Location	Capacity in MGD	Annual Average Usage in MGD (FY 2010)	Percentage of Capacity Used
Plew Heights	1.5	0.33	22

Source: Adams, 2011b

MGD= Millions of Gallons per Day.

3.7.3 Environmental Consequences

3.7.3.1 Alternative A: No Action

Under Alternative A, the Eglin Temporary Lodge would not be constructed, and would therefore have no impact on the utilities infrastructure on Eglin AFB.

3.7.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)

Electricity: The Alternative B site was recently occupied by base family housing, and the electrical infrastructure is available and intact. These electrical supply lines would be accessed in order to provide electricity for the facility during construction. As a result, the Air Force does not anticipate any adverse impacts from Alternative B.

Communications: The Alternative B site was recently occupied by base family housing, and the communications infrastructure is available and intact. These communications systems would be accessed in order to meet the needs of the facility during construction. As a result, the Air Force does not anticipate any adverse impacts from Alternative B.

Natural Gas: The Alternative B site was recently occupied by base family housing, and the availability of natural gas is extensive. These natural gas lines would be accessed in order to meet the needs of the facility during construction. As a result, the Air Force does not anticipate any adverse impacts from Alternative B.

Potable Water: The Alternative B site was recently occupied by base family housing, and the potable water supply system is available and intact. These water mains would be accessed in order to meet the needs of the facility during construction. As shown in Table 3-7, the maximum monthly limit for water usage for the Eglin Housing water system is 120 million gallons. The 2010 average monthly usage for this system was 21.7 million gallons, equating to only 18 percent. As a result, the Air Force does not anticipate any adverse impacts from Alternative B.

Nonpotable Water: The network of nonpotable water lines is extensive throughout this populated area of Eglin AFB. The nonpotable water system supplies fire hydrants used for fire suppression. There are currently several operable fire hydrants in the area of Alternative B, and if necessary, additional hydrants could be installed. The Air Force does not anticipate any adverse impacts under Alternative B.

Wastewater Disposal: The Alternative B site was recently occupied by base family housing, and the wastewater disposal infrastructure easily accessible. As shown in Table 3-8, during

FY 2010, the Plew Heights WWTP operated at 22 percent of its capacity. The Air Force does not anticipate any adverse impacts under Alternative B.

3.7.3.3 Alternative C: Memorial Trail and Hatchee Rd.

Under Alternative C, the location for the Eglin Temporary Lodging would change, but the construction footprint would remain identical to that of Alternative B. The potential environmental consequences from utilities are minimal, and are identical to those described for Alternative B. The utility infrastructure is already in place in the Alternative C study area, and as a result the Air Force does not anticipate any adverse impacts under Alternative C.

3.8 WATER RESOURCES

3.8.1 Definition

Groundwater

Groundwater is defined by the U.S. Geological Survey (USGS) as “water that flows or seeps downward and saturates soil or rock, supplying springs and wells” (USGS, 2009). A deposit of subsurface water that is large enough to tap via a well is referred to as an aquifer.

Surface Water

Surface water is defined as any water on Earth’s surface and includes lakes, rivers, and streams (USGS, 2009). Surface waters are important for a variety of reasons including economic, ecological, recreational, and human health. Surface waters have the potential to be impacted by land clearing and construction activities.

Stormwater

Stormwater refers to water originating from precipitation events that flows over land or impervious surface and is not absorbed in to the soil or ground. Stormwater can adversely affect water quality, aquatic habitats, the hydrologic characteristics of streams and wetlands, and can increase flooding. Land-disturbing activities (such as clearing and grading) and the addition of impermeable surfaces (concrete, asphalt, etc.) would result in increases in stormwater runoff.

Wetlands

Wetlands are defined in the USACE Wetlands Delineation Manual as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas” (USACE, 1987). The majority of jurisdictional wetlands (wetlands that fall under state or federal regulatory authority) in the United States are described using the three wetland delineation criteria: hydrophytic vegetation, hydric soils, and hydrology (USACE, 1987).

Floodplains

Floodplains are lowland areas adjacent to surface water bodies (e.g., lakes, wetlands, and rivers) that are periodically covered by water during flooding events. Federal actions occurring within flood zones require a finding of no practical alternative (FONPA). Floodplains are biologically unique and are also highly diverse ecosystems that provide a rich diversity of aquatic and terrestrial species, acting as a functional part of natural systems (Mitsch and Gosselink, 2000).

Coastal Zone

The CZMA provides for the effective, beneficial use, protection, and development of the U.S. coastal zone. Under the CZMA the term “coastal zone” is defined as coastal waters and adjacent shore lands strongly influenced by each other and in proximity to the several coastal states, including islands, transitional and intertidal areas, salt marshes, wetlands, and beaches. The landward boundaries of the state of Florida are defined by the state, in accordance with Section 306(d)(2)(A) of the CZMA, as the entire state of Florida. Since all of Florida is within the coastal zone as defined by the CZMA and Florida’s Coastal Management Program, all of the potentially affected resources discussed and analyzed in this chapter are coastal resources. These resources are discussed in more detail in the CZMA consistency determination provided in Appendix B, Coastal Zone Management Act Consistency Determination.

3.8.2 Affected Environment

Groundwater

The two aquifers located under Eglin AFB are the Sand and Gravel Aquifer and the Floridan Aquifer. The Floridan Aquifer is located below the Sand and Gravel Aquifer and extends beneath peninsular Florida. The descriptions of the Sand and Gravel Aquifer and Floridan Aquifer given below apply to all Eglin AFB, and therefore Alternative A, B, and C actions in this EA. Water in the Sand and Gravel aquifer exists in generally unconfined (a free water surface or water table conditions) and confined (under pressure) conditions (USGS, 1990). Water from this aquifer is not a primary source of domestic or public supply water on Eglin AFB because of the large quantities of higher quality water available from the underlying Upper Limestone of the Floridan Aquifer (NFWFMD, 2008). The Floridan Aquifer consists of a thick sequence of interbedded limestone and dolomite. The top of the aquifer is about 50 feet below mean sea level (MSL) in the northeast corner of the base and increases to about 700 feet below MSL in the southwestern area of the base. The top of the aquifer is about 400 to 450 feet below MSL in the main base area. Water flow direction is northeast to southwest. Throughout the Eglin Reservation, the Floridan Aquifer exists under confined conditions, bounded above and below by the Pensacola Clay Formation confining bed (NFWFMD, 2008). This clay layer of the Bucatunna Formation separates the upper and lower limestone units. Groundwater storage and movement in the upper limestone layer occurs in interconnected, intergranular pore spaces, small solution fissures, and larger solution channels and cavities. Increasing concerns about the existing and anticipated water supply from the Floridan Aquifer has resulted in the designation of the coastal areas of Region II, south of Eglin AFB in Santa Rosa, Okaloosa and Walton Counties, as a Water Resource Caution Area (WRCA). The designation WRCA by the NFWFMD requires withdrawal permittees to implement water conservation measures and

maximize their water use efficiency. In addition, permittees in the WRCA are subject to increased water use reporting requirements. The designation of WRCA also prohibits the use of the Floridan Aquifer for nonpotable purposes (NFWFMD, 2008). At Eglin AFB, the Floridan Aquifer is used extensively for drinking water while only small amounts are withdrawn from the Sand and Gravel Aquifer. The Sand and Gravel Aquifer provide an alternative source for nonpotable uses at Eglin AFB.

Surface Water

There are no surface waters within the project footprints of Alternative A, B, and C (Figure 3-5). The nearest water body is Lower Memorial Lake, east southeast and over 620 feet away from Alternative B. The nearest boundary of the 100-year flood zone lies 730 feet east-southeast of Alternative B. The nearest wetland is 1,235 feet east northeast of Alternative B. The nearest water body to the Alternative C site is an unnamed stream, north of Ben's Lake, and located 220 feet away from the Alternative C site. The nearest 100-year flood zone lies 310 feet southwest of the Alternative C site and the nearest wetlands is 280 feet away.

Stormwater

Florida Administrative Code (FAC) 62-346 regulates stormwater discharge facilities and permitting, and their design requirements are outlined in the Department of Environmental Protection and Northwest Florida Water Management District Environmental Resource Applicant's Handbook Volumes I and II. Part II of Volume II establishes the general design and performance criteria for stormwater management systems.

All construction and industrial activities that have the potential to impact stormwater quality or disturb more than one acre of land must be permitted under National Pollutant Discharge Elimination System (NPDES) regulations as administered by the FDEP. The Air Force must obtain from the FDEP a Generic Permit for Stormwater Discharge for Large and Small Construction Activities. An Application for Stormwater Permit in Northwest Florida will be submitted by the Air Force prior to project initiation according to FAC Rule 62-346.

Wetlands

The nearest wetland is 1,235 feet away from the Alternative B site and 280 feet away from the Alternative C site (Figure 3-5).

Floodplains

None of the alternatives are located within the 100-year floodplain (Figure 3-5, Water Resources).

Coastal Zones

As mentioned in Section 3.7.1 the entire state of Florida and therefore Alternative A, B, and C sites are located within the coastal zone as defined by the CZMA.



Construction of a Temporary Lodging Facility, Eglin AFB Environmental Assessment

9/16/2011



Figure 3-5. Water Resources

for the Construction of a Temporary Lodging Facility
Eglin Air Force Base, FL

03/01/2012

Page 3-31

3.8.3 Environmental Consequences

3.8.3.1 Alternative A: No Action

Alternative A would not affect water resources. The TLF would not be constructed.

3.8.3.2 Alternative B: Hatchee Rd. and Foster Dr. (Proposed Action/Preferred Alternative)

Alternative B would not significantly affect water resources. The primary issue is the potential for indirect effects to surface waters from stormwater runoff. Land-disturbing activities (such as clearing and grading) and the addition of impermeable surfaces (concrete, asphalt, etc.) would result in an increased potential for stormwater runoff at the Alternative B site. However, the permeability of soils, lack of slope at the site and existing vegetation would prevent stormwater borne sediments from the construction areas from entering surface waters and wetlands, which are located at distances of several hundred feet from the proposed site. Further, the Air Force and their construction contractors will adhere to NPDES and FAC 62-346 permitting requirements, providing reasonable assurance that the construction, and operation and maintenance of stormwater management systems will not cause adverse effects resulting from stormwater discharges.

Alternative B would not impact groundwater usage differently than previous usage at this site. The NFWFMD's designation of Eglin AFB as a Water Resource Caution Area (WRCA) will require groundwater withdrawal permittees to implement water conservation measures and maximize their water use efficiency and has increased water usage reporting.

3.8.3.3 Alternative C: Memorial Trail and Hatchee Rd.

Implementing Alternative C would not result in adverse impacts to water resources. Similar to Alternative B, construction of the TLF at the Alternative C site would not affect surface waters or wetlands because of the distance from the site from these features, soil permeability and adherence to NPDES and FDEP permit requirements for construction.

4. CUMULATIVE IMPACTS

Cumulative impacts to environmental resources result from incremental effects of proposed actions when combined with other past, present, and reasonably foreseeable future projects in the ROI. Cumulative impacts can result from individually minor but collectively substantial actions undertaken over a period of time by various agencies (federal, state, and local) or individuals. In accordance with NEPA, a discussion of cumulative impacts resulting from projects that are proposed, or anticipated over the foreseeable future, is required.

4.1 PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS IN THE ROI

This section discusses the potential for cumulative impacts caused by implementation of the Proposed Action when combined with other past, present, and reasonably foreseeable actions occurring in the ROI. The ROI is defined as Eglin AFB, main base.

4.1.1 Past and Present Actions

The Air Force has not identified any other past or present actions that are relevant to the current Proposed Action. Other future actions planned include implementation of the BRAC decisions made in 2005 for Eglin AFB and the Eglin/Hurlburt Housing Privatization Initiative.

4.1.2 Reasonably Foreseeable Future Actions

An ROD was signed in February 2009 for the 2005 BRAC decision to establish the Joint Strike Fighter (JSF) Initial Joint Training Site (IJTS) at Eglin AFB for joint Air Force, Navy, and Marine Corps JSF training organizations to teach aviators and maintenance technicians how to properly operate and maintain this new weapons system. A Supplemental Environmental Impact Statement is currently under way to analyze options for new runways or reconfiguring existing Eglin runways to accommodate additional aircraft. As part of the 2005 BRAC decision approximately 4,000 additional military, civilian, and contractor personnel (not including family members) would relocate to Eglin AFB. Potential impacts from these programs due to changing mission and additional personnel may include noise, air quality, munitions storage concerns, transportation, and utilities concerns, among others. In particular, the additional personnel would impact the demand for TLFs at Eglin AFB.

Due to the BRAC decisions the Air Force needed to conduct a new housing requirements analysis in light of the changes in personnel. Thus, the Air Force intends to privatize its housing at Eglin AFB and Hurlburt Field under a statutory program to allow it to meet its military housing requirement. This is referred to as the Military Housing Privatization Initiative, or MPHI. At completion of the project, a developer would own and operate 1,477 housing units on behalf of Eglin AFB and Hurlburt Field.

Due to the importance of Eglin AFB, it is anticipated that the area will undergo many future construction and renovation projects throughout the next 5 years. Similar to other construction projects, any potential future projects would most likely result in impacts to land use, air quality, noise, traffic and transportation, water resources, local utilities, and hazardous materials.

Potentially replacing older buildings and facilities with newer buildings and technologies would provide an overall benefit due to an increase in energy efficiency. Implementation of BMPs as required under construction and associated permits would minimize impacts to soils, stormwater, surface water, and air quality. Overall, the cumulative impacts from the projects described above are not anticipated to be significant.

Air Quality

Air quality would be temporarily impacted by construction activities occurring concurrently. The emissions from construction are expected to be minimal and would have little overall effect on regional air quality. Thus, no significant impacts to the region's air quality are expected.

Biological Resources

Localized loss of habitat, degradation of habitat, noise impacts, or direct physical impacts to species can have a cumulative impact when viewed on a regional scale if that loss or impact is compounded by other events with the same end results. Analysis of potential impacts has identified minimal potential for significant impacts to biological resources, which includes vegetation, wildlife, threatened and endangered species and their habitat, provided Eglin AFB implements management actions and BMPs.

Hazardous Materials/Wastes

Planned and foreseeable construction, renovation, and demolition activities within Eglin AFB would result in short-term increases in the volume of hazardous wastes generated at the installation. Hazardous materials and wastes would be handled, stored, and disposed of in accordance with applicable regulations and approved plans. Air Force regulations require contractors to recycle materials to the maximum extent possible to reduce the amount of debris disposed of at off-installation landfills. Planned and foreseeable construction, renovation and demolition activities within Eglin AFB could cumulatively impact available landfill capacity. However, due to available landfill capacity there should be no significant cumulative impacts to hazardous materials and wastes. Therefore, no significant cumulative impacts are anticipated.

Noise

Planned and foreseeable construction, renovation, and demolition activities within Eglin AFB would cause localized increases in the area sound environment. The projects would occur in an area currently exposed to high level of noise from aircraft operations, which dominate the sound environment. Implementing noise attenuation (reduction) measures into the design and construction of structures would minimize adverse affects on sensitive receptors. No significant cumulative impacts have been identified for noise.

Safety

No cumulative impacts have been identified for safety.

Socioeconomics

Construction, facility improvements and infrastructure upgrades associated with past, present, and foreseeable actions would provide additional beneficial impacts to the local economy from the use of local labor and supplies. These activities would be temporary and minor, lasting only the duration of the construction and renovation activities. However, over time these activities would be anticipated to provide sustainable employment and earnings and result in beneficial cumulative impacts.

Utilities

No cumulative impacts have been identified for utilities. No new activities are planned that would contribute to cumulative impacts to utilities.

Water Resources

No cumulative impacts have been identified for water resources. Typical construction BMPs would be implemented as required for any new construction.

4.2 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

NEPA requires that EAs include identification of any irreversible and irretrievable commitment of resources that would be involved in the implementation of the Proposed Action. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the uses of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced within a reasonable timeframe. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the Proposed Action (e.g., extinction of a threatened or endangered species or the disturbance of a cultural site).

Environmental consequences as a result of this project are considered short term and temporary. Construction activities would require consumption of limited amounts of materials typically associated with interior and exterior construction (e.g., concrete, wiring, piping, insulation, and windows). The Air Force does not expect the amount of these materials used to significantly decrease the availability of the resources. Small amounts of nonrenewable resources would be used; however, the Air Force does not consider these amounts to be appreciable and does not expect them to affect the availability of these resources.

This page left blank intentionally.

5. MANAGEMENT PRACTICES

The following is a list of regulations, plans, permits, and management actions associated with the Proposed Action as described in Section 1.2. The environmental impact analysis process for this EA identified the need for these requirements, and the proponent and interested parties involved in the Proposed Action cooperated to develop them. These requirements are, therefore, to be considered as part of the Proposed Action and would be implemented through the Proposed Action's initiation. The proponent is responsible for adherence to and coordination with the listed entities to complete the plans, permits, and management actions.

5.1 REGULATIONS, PLANS, AND PERMITS

- CZMA Consistency Determination (Appendix B, Coastal Zone Management Act Consistency Determination)
- SWPPP
- FDEP NPDES Permit

5.2 MANAGEMENT ACTIONS

The proponent is responsible for implementation of the following management actions.

5.2.1 Air Quality

- Construction activities will employ standard management measures such as watering of graded areas, covering soil stockpiles, and contour grading (if necessary), to minimize temporary generation of dust and particulate matter.
- Diesel-powered highway and nonroad vehicles and engines used in construction will limit idling time to 3 minutes, except as necessary for safety, security, or to prevent damage to property; and such exhausts will be located the maximum feasible distance from any building fresh air intake vents.

5.2.2 Biological Resources

- Building location(s) and orientation(s) will be designed to minimize the loss of trees, particularly longleaf pines.
- A gopher tortoise survey is required before construction activities begin. Any tortoises found will be relocated. Any burrows on the project site will be investigated for the presence of eastern indigo snake. Burrows will be collapsed after investigation and relocation, if applicable, to deter subsequent occupation by additional gopher tortoises or other wildlife.

5.2.3 Hazardous Materials and Waste

- Construction will adhere to the present HWMP tracking and reporting requirements as well as AFI 32-7086.
- Nonhazardous solid waste associated with building construction activities would be recycled to the extent possible.

5.2.4 Utilities

- Coordination with all utility providers would be required prior to any ground-disturbing activities in an effort to minimize potential conflicts between utility providers.

5.2.5 Water Resources

- Alternative B and Alternative C will result in construction activities that disturb greater than 1 acre of undisturbed land (TLF and parking developing 1.5 acres of the 10-acre sites) that will require management to reduce off-site transmission of stormwater.
- Developers will adhere to all applicable regulatory requirements, as discussed in Section 1.4.2 and may be required to develop a SWPPP using Stormwater Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices, (USEPA, 1992).
- Stormwater treatment for TLF and parking lot runoff can incorporate dry swales, vegetative channels, bioretention areas, filter strips, or other practices that can be integrated into landscaping areas.
- The acreage not included in the construction, at either site, should be disturbed as little as possible and retain its current ecological function (for example, protecting critical root zones of retained trees).
- The use of silt fencing around the construction site and staging area may be required to prevent transmission of stormwater off-site.

6. LIST OF PREPARERS AND CONTRIBUTORS

Name/Title	Project Role	Subject Area	Experience
<i>Alysia Baumann</i> NEPA Planner/Specialist B.S. Chemical Engineering, 2002	Author	Noise	7 years environmental science
<i>Brett Beedles</i> NEPA Analyst	Author	Utilities, Safety, and Hazardous Materials/Waste	23 years military acoustics, 3 years environmental science.
<i>Brad Boykin</i> Environmental Scientist B.S. Biomedical Science M.B.T. Biotechnology	Author	Air Quality	7 years biotechnology and chemistry
<i>Jeri Brecken</i> Environmental Scientist M.S. Biology B.S. Forest Resources and Conservation	Author	Water Quality	22 years environmental science
<i>Rick Combs</i> Environmental Scientist M.S. Biology B.S. Biology B.S. Business Administration	Author	Biological Resources	10 years environmental science
<i>Mike Nation</i> Environmental Scientist B.S. Environmental Science/Policy, Minor in Geography; A.A. General Science	GIS Analyst		11 years environmental consultant, interagency coordination, GIS Arc View applications
<i>Pam McCarty</i> Economist/Environmental Analyst M.A. Applied Economics B.S. Business Administration, Economics	Author	Socioeconomics	5 years environmental science
<i>Jamie McKee</i> Environmental Scientist B.S. Marine Biology	Project Manager	Technical Review	26 years environmental science

List of Preparers and Contributors

This page left blank intentionally.

References

7. REFERENCES

Air Armament Center (AAC), 2011. Base Population Report. April.

Adams, T., 2011a. Eglin AFB FY10 potable water usage data. Provided by Mr. Travis Adams, 96 CEG/CEV via email. 07 Sep 2011.

Adams, 2011b. Personal Communication via email between Travis Adams, SAIC, and Brett Beedles, SAIC regarding monthly wastewater treated at Eglin AFB.

Council on Environmental Quality (CEQ), 2010. "Draft NEPA Guidance on Consideration of the Effects of Climate Change and Green House Gas Emissions." Memorandum for Heads of Federal Departments and Agencies. February 18, 2010.

Continental Group, 2010. Appendix E Government Utility Sales and Consumption Rates, 08 Oct 2010. Retrieved from http://adminpress.jllpress.com/Continental_Group/documents/ContinentalGroupAppendixEUtilitySalesRates_20101008_.pdf on 01 Sep 2011.

Daly, Leo A., (2011). Eglin Air Force Base, Florida; Temporary Lodging Facility AFBCIF 135003 FTEV 10-5002. Out-Brief Presentation. June 17, 2011.

Department of Defense (DoD), 2007. Unified Facilities Criteria (UFC): DoD Minimum Antiterrorism Standards for Buildings. January.

Department of Defense Instruction (DoDI) 4165.57, 1977. Department of Defense Instruction Number 4165.57. Subject: Air Installations Compatible Use Zones. November 8, 1977

Dykas, Janice, 2011. Construction of a TLF EA Meeting Minutes. 23 Aug 2011.

Eglin Air Force Base (AFB), 2008. 2008 Master Transportation Plan. May.

Eglin Air Force Base (AFB), 2011. Air Force (AF) Form 813: Construct New TLF's. RCS Number: 10-692.

Federal Aviation Administration (FAA). 1985. Aviation Noise Effects. March 1985.

Federal Interagency Committee on Noise (FICON), 1992. Federal Agency Review of Selected Airport Noise Analysis Issues. August 1992.

Federal Interagency Committee On Urban Noise (FICUN), 1980. Guidelines for Considering Noise in Land Use Planning and Control. Washington, D.C. NIIS PB83-184838. June 1980.

Fidell, S., K. Parsons, R. Howe, B. Tabachnik, L. Silvati, and D. S. Barber., 1995. Field study of noise-induced sleep disturbance. Journal of the Acoustical Society of America, Vol 98, No 2, pp 1025–1033.

Finegold, L. S., C. S. Harris, and H. E. vonGlerke, 1994. Community annoyance and sleep disturbance: Updated criteria for assessing the impacts of general transportation noise on people. Noise Control Engineering Journal, Vol 42, pp 25–30. Jan-Feb 1994.

Florida Department of Environmental Protection (FDEP), 2009. Okaloosa County 2009 Air Monitor Site. Accessed online at <http://appprod.dep.state.fl.us/air/flaqs/SiteDetail.asp?SiteID=120910002&RequestYear=2011>. 25 October 2011.

Florida Department of Environmental Protection (FDEP), 2010. Okaloosa County MSW and Recycling Summary Data Sheet. 7 Apr 2010.

References

Kryter, K. D., 1984. Physiological, Psychological, and Social Effects of Noise. NASA Reference Publication 1115, 446. July 1984.

Mitsch, W. J., and J. G. Gosselink, 2000. Wetlands, 3rd Edition. John Wiley & Sons: New York.

Northwest Florida Water Management District (NFWFMD), 2008. 2008 Water Supply Assessment Update. Water Resource Assessment 08-02. December 2008.

Pearsons, K. S., D. S. Barber, B. G. Tabachnik, and S. Fidell, 1995. Predicting noise-induced sleep disturbance. Journal of the Acoustical Society of America, Vol 97, No 1, pp 331–338.

U.S. Air Force Policy Directive 32-70, Environmental Quality. 20 Jul 1994.

U.S. Air Force, 1997. Installation Force Protection Guide.

U.S. Air Force, 2001. Temporary Lodging Facilities Design Guide. December

U.S. Air Force, 2004. US Air Force Family Housing Guide for Planning, Programming, Design and Construction. August 2004. Accessed from <http://www.afceec.brooks.af.mil/dc/dch/mfhguide/> guide.asp on 23 March 2008

U.S. Air Force Handbook (AFH) 32,7084, AICUZ Program Manager's Guide. 1999.

U.S. Air Force Instruction (AFI) 32-7086, Hazardous Materials Management. 1 Nov 2004

U.S. Air Force Instruction (AFI) 32-7042, Waste Management. 15 Apr 2009

U.S. Air Force, 2010. Project Validation Assessment: Eglin Air Force Base Temporary Lodging Facilities. U.S. Air Force Services Agency. November.

U.S. Air Force (USAF). 2011. Military Housing Privatization Initiative (MHPI). Eglin Air Force Base, Florida and Hurlburt Field, Florida. Final Environmental Impact Statement. United States Air Force, Air Force Material Command and Air Force Special Operations Command. May 2011.

U.S. Army, 2007. Army Regulation 200-1, Environmental Protection and Enhancement. December 2007.

U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), 2005. Operational Noise Management: An Orientation Handbook for Army Facilities. November 2005.

U.S. Army Corps of Engineers (USACE), 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1.

U.S. Energy Information Administration, 2009. "Emissions of Greenhouse Gases Report." Produced by the National Energy Information Center, Energy Information Administration. Available on the Internet at <http://www.eia.gov/oiaf/1605/ggrpt/carbon.html#total>. Accessed on September 30, 2011.

U.S. Department of Transportation (USDOT), 2006. FHWA Roadway Construction Noise Model User's Guide. Prepared for the U.S. Department of Transportation Federal Highway Administration Office of Environment Planning, Washington, D.C. January 2006.

U.S. Environmental Protection Agency (USEPA), 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Office of Noise Abatement and Control. EPA Report 550/9-74-004.

U.S. Environmental Protection Agency (USEPA), 1981. Noise Effects Handbook: A Desk Reference to Health and Welfare Effects of Noise. Office of Noise Abatement and Control. EPA 500-9-82-106.

References

U.S. Environmental Protection Agency (USEPA), 1992. Stormwater Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices. Office of Water, EPA 832-R-92-005. September 1992. Available online at: http://cfpub.epa.gov/npdes/docs.cfm?program_id=6&view=archivedprog&sort=name.

U.S. Environmental Protection Agency (USEPA), 1998. Characterization of Building-Related Construction and Demolition Debris in the United States. June.

U.S. Environmental Protection Agency (USEPA), 2002. USEPA 2002 National Emissions Inventory (NEI) Microsoft Access database. Retrieved at <http://www.epa.gov/ttn/chief/net/2002inventory.html#inventorydata> in September 2011.

U.S. Environmental Protection Agency (USEPA), 2009. Estimating 2003 Building Related Construction and Demolition Materials Amounts. Mar 2009.

U.S. Environmental Protection Agency (USEPA), 2011a. Currently Designated Nonattainment Areas for All Criteria Pollutants. Accessed online at <http://www.epa.gov/air/oaqps/greenbk/anc13.html>. updated August 30, 2011.

U.S. Environmental Protection Agency (USEPA), 2011b. National Ambient Air Quality Standards (NAAQS). Accessed online at <http://www.epa.gov/air/criteria.html>. updated August 4, 2011.

United States Geological Survey (USGS). 1990. Ground Water Atlas of the United States, Alabama, Florida, Georgia, and South Carolina (HA 730-G). James A. Miller, U.S. Geological Survey, Office of Ground Water, 411 National Center, Reston, VA 20192. 1990. Accessed online at <http://pubs.usgs.gov/ha/ha730/>. Accessed 3 February 2010

United States Geological Survey (USGS), 2009. Water Science Glossary of Terms. Available online at: <http://water.usgs.gov/edu/dictionary.html>. Accessed on 25 January, 2010.

References

This page left blank intentionally.

APPENDIX A

PUBLIC AND AGENCY OUTREACH

PUBLIC AND AGENCY OUTREACH

PUBLIC NOTIFICATION

In compliance with the National Environmental Policy Act, Eglin Air Force Base (AFB) announces the availability of the Draft Environmental Assessment for Construction of a Temporary Lodging Facility at Eglin Air Force Base, Florida, and Draft Finding of No Significant Impact (FONSI), for public review.

Eglin AFB proposes the construction of a new temporary lodging facility (TLF) on Eglin main base. The proposed TLF would consist of 32 units on approximately 10 acres, including setback and open space requirements. The preferred location for the TLF is the corner of Hatchee Road and Foster Drive at Eglin AFB. The primary facility would consist of a building or series of buildings covering approximately 1 acre and a parking lot covering approximately 0.75 acre. Supporting facilities would include utilities; parking lot lighting; walks, curbs, and gutters; storm drainage; site improvements; antiterrorism protection measures; and building information systems.

Your comments on this Draft Environmental Assessment (EA) are requested. Letters or other written or oral comments provided may be published in the Final EA. As required by law, comments will be addressed in the Final EA and made available to the public. Any personal information provided will be used only to identify your desire to make a statement during the public comment period or to fulfill requests for copies of the Final EA or associated documents. Private addresses will be compiled to develop a mailing list for those requesting copies of the Final EA. However, only the names and respective comments of respondent individuals will be disclosed. Personal home addresses and phone numbers will not be published in the Final EA.

Copies of the Draft EA and Draft FONSI may be reviewed online at www.eglin.af.mil/eglindocuments.asp from February 4, 2012, until February 18, 2012. Local libraries have Internet access, and librarians can assist in accessing this document. Comments must be received by February 21, 2012, to be included in the Final EA.

For more information or to comment on these proposed actions, contact: Mike Spaits, 96 ABW Public Affairs, 101 West D Ave., Ste. 110, Eglin AFB, Florida 32542 or email: mike.spaits@eglin.af.mil. Tel: (850) 882-3931; Fax: (850) 882-3761.

This page is intentionally blank.

AGENCY CORRESPONDENCE

Florida Department of
Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

February 6, 2012

Mr. W. Jamie McKee, Project Manager
Science Applications International Corp.
1140 North Eglin Parkway
Shalimar, FL 32579

RE: Department of the Air Force - Draft Final Environmental Assessment,
Construction of a Temporary Lodging Facility at Eglin Air Force Base -
Okaloosa County, Florida.
SAI # FL201112126063C

Dear Mr. McKee:

The Florida State Clearinghouse has coordinated a review of the Draft Final Environmental Assessment (EA) under the following authorities: Presidential Executive Order 12372; Section 403.061(42), *Florida Statutes*; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, as amended.

Based on the information contained in the Draft EA and enclosed state agency comments, the state has determined that, at this stage, the proposed federal action is consistent with the Florida Coastal Management Program (FCMP). The state's continued concurrence will be based on the activity's compliance with FCMP authorities, including federal and state monitoring of the activity to ensure its continued conformance, and the adequate resolution of any issues identified during subsequent regulatory reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting process in accordance with Section 373.428, *Florida Statutes*.

Thank you for the opportunity to review the Draft Final EA. Should you have any questions regarding this letter, please contact Ms. Lauren P. Milligan at (850) 245-2170.

Yours sincerely,

Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/lm
Enclosures

www.dep.state.fl.us



Florida
Department of Environmental Protection
"More Protection, Less Process"



[DEP Home](#) | [FOIP Home](#) | [Contact DEP](#) | [Search](#) | [DEP Site Map](#)

Categories

Project Information	
Project:	FL201112126063C
Comments Due:	01/23/2012
Letter Due:	02/09/2012
Description:	DEPARTMENT OF THE AIR FORCE - DRAFT FINAL ENVIRONMENTAL ASSESSMENT, CONSTRUCTION OF A TEMPORARY LODGING FACILITY AT EGLIN AIR FORCE BASE - OKALOOSA COUNTY, FLORIDA.
Keywords:	USAF - CONSTRUCT TEMPORARY LODGING FACILITY, EGLIN AFB - OKALOOSA CO.
CFDA #:	12.200

Agency Comments:	
WEST FLORIDA RPC - WEST FLORIDA REGIONAL PLANNING COUNCIL	
No Comments - Generally consistent with the West Florida Strategic Regional Policy Plan.	
OKALOOSA - OKALOOSA COUNTY	
No Comments	
FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION	
NO COMMENT BY TED HOEHN ON 1/9/2012.	
STATE - FLORIDA DEPARTMENT OF STATE	
No Comment/Consistent	
NORTHWEST FLORIDA WMD - NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT	
Please be advised that the proposed facility construction project will likely require the issuance of an environmental resource permit by the Northwest Florida Water Management District (NFWFMD) under Chapter 62-346, Florida Administrative Code. Further inquiries concerning the state's permitting requirements should be directed to Environmental Resource Permitting Program staff in the NFWFMD's Crestview Field Office at (850) 683-5044.	

For more information or to submit comments, please contact the Clearinghouse Office at:

3900 COMMONWEALTH BOULEVARD, M.S. 47
TALLAHASSEE, FLORIDA 32399-3000
TELEPHONE: (850) 245-2161
FAX: (850) 245-2190

Visit the [Clearinghouse Home Page](#) to query other projects.

[Copyright](#)
[Disclaimer](#)
[Privacy Statement](#)

COUNTY: OKALOOSA
 SCH-106-USAF - EGI
 2011- 5904

DATE: 12/12/2011
 COMMENTS DUE DATE: 1/23/2012
 CLEARANCE DUE DATE: 2/9/2012
 SAI#: FL201112126063C

MESSAGE:

STATE AGENCIES	WATER MNGMNT. DISTRICTS	OPB POLICY UNIT	RPCS & LOC GOVS
FISH and WILDLIFE COMMISSION <input checked="" type="checkbox"/> STATE	NORTHWEST FLORIDA WMD		

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

DEPARTMENT OF THE AIR FORCE - DRAFT FINAL ENVIRONMENTAL ASSESSMENT, CONSTRUCTION OF A TEMPORARY LODGING FACILITY AT EGLIN AIR FORCE BASE - OKALOOSA COUNTY, FLORIDA.

To: Florida State Clearinghouse

EO. 12372/NEPA Federal Consistency

AGENCY CONTACT AND COORDINATOR (SCH)
 3900 COMMONWEALTH BOULEVARD MS-47
 TALLAHASSEE, FLORIDA 32399-3000
 TELEPHONE: (850) 245-2161
 FAX: (850) 245-2190

No Comment/Consistent
 Comment Attached
 Not Applicable
 No Comment/Consistent
 Consistent/Comments Attached
 Inconsistent/Comments Attached
 Not Applicable

From:

Division of Historical Resources

Division/Bureau:

Bureau of Historic Preservation

Reviewer: S. Edwards

Laura A. Kammeyer
Deputy SHPO
1-16-2012

Date: 1-1-2012

RECEIVED
 JAN 11 2012
 DEP Office of
 Intergov'tl Programs

RECEIVED
 JAN 11 2012
 DEP Office of
 Intergov'tl Programs

This page is intentionally blank.

APPENDIX B

COASTAL ZONE MANAGEMENT ACT CONSISTENCY

DETERMINATION

FEDERAL AGENCY COASTAL ZONE MANAGEMENT ACT (CZMA) CONSISTENCY DETERMINATION

Introduction

This document provides the State of Florida with the U.S. Air Force's Consistency Determination under CZMA Section 307 and 15 C.F.R. Part 930 sub-part C. The information in this Consistency Determination is provided pursuant to 15 C.F.R. Section 930.39 and Section 307 of the Coastal Zone Management Act, 16 U.S.C. § 1456, as amended, and its implementing regulations at 15 C.F.R. Part 930.

This federal consistency determination addresses the Proposed Action associated with the construction of a Temporary Lodging Facility (TLF) on main base, Eglin Air Force Base (AFB), Florida (Figure 1-1).

Proposed Federal agency action:

The Air Force proposes the construction of a new TLF complex on approximately 10 acres at Eglin AFB. The complex will include a primary facility, supporting facilities, setbacks, and open space. Figure 1-2 depicts the location of the Proposed Action and alternatives included in the Environmental Assessment.

Under the Proposed Action, the U.S. Air Force would implement the construction of a TLF on approximately 435,600 square feet (10 acres), including setback and open space requirements. The preferred location for the TLF is the corner of Hatchee Road and Foster Drive on main base. The primary facility will consist of the construction of a building or series of buildings covering approximately 45,000 square feet (1 acre) and a parking lot area covering approximately 32,670 square feet (0.75 acre). Supporting facilities would include utilities; parking lot lighting; walks, curbs and gutters; storm drainage; site improvements; antiterrorism (AT) protection measures; and building information systems.

Federal Review

Statutes addressed as part of the Florida Coastal Zone Management Program consistency review and considered in the analysis of the Proposed Action are discussed in the following table.

Pursuant to 15 C.F.R. § 930.41, the Florida State Clearinghouse has 60 days from receipt of this document in which to concur with, or object to, this Consistency Determination, or to request an extension, in writing, under 15 C.F.R. § 930.41(b). Florida's concurrence will be presumed if Eglin AFB does not receive its response on the 60th day from receipt of this determination.

Table B-1. Florida Coastal Management Program Consistency Review

Statute	Consistency	Scope
<i>Chapter 161 Beach and Shore Preservation</i>	<p>The Proposed Action would not affect beach and shore management, specifically as it pertains to:</p> <ul style="list-style-type: none"> • The Coastal Construction Permit Program. • The Coastal Construction Control Line (CCCL) Permit Program. • The Coastal Zone Protection Program. <p>All activities would occur on federal property.</p>	<p>Authorizes the Bureau of Beaches and Coastal Systems within DEP to regulate construction on or seaward of the states' beaches.</p>
<i>Chapter 163, Part II Growth Policy; County and Municipal Planning; Land Development Regulation</i>	<p>The Proposed Action, which occurs on federal property, would not affect local government comprehensive plans.</p>	<p>Requires local governments to prepare, adopt, and implement comprehensive plans that encourage the most appropriate use of land and natural resources in a manner consistent with the public interest.</p>
<i>Chapter 186 State and Regional Planning</i>	<p>The Proposed Action would not affect state plans for water use, land development, or transportation.</p>	<p>Details state-level planning requirements. Requires the development of special statewide plans governing water use, land development, and transportation.</p>
<i>Chapter 252 Emergency Management</i>	<p>The Proposed Action would not affect the state's vulnerability to natural disasters.</p> <p>The Proposed Action would not affect emergency response and evacuation procedures.</p>	<p>Provides for planning and implementation of the state's response to, efforts to recover from, and the mitigation of natural and manmade disasters.</p>
<i>Chapter 253 State Lands</i>	<p>All activities would occur on federal property. The Proposed Action would not affect the state's administration of public lands.</p>	<p>Addresses the state's administration of public lands and property of this state and provides direction regarding the acquisition, disposal, and management of all state lands.</p>
<i>Chapter 258 State Parks and Preserves</i>	<p>The Proposed Action would not affect state parks, recreational areas and aquatic preserves.</p>	<p>Addresses administration and management of state parks and preserves.</p>
<i>Chapter 259 Land Acquisition for Conservation or Recreation</i>	<p>The Proposed Action would not affect tourism and/or outdoor recreation.</p>	<p>Authorizes acquisition of environmentally endangered lands and outdoor recreation lands.</p>
<i>Chapter 260 Recreational Trails System</i>	<p>The Proposed Action would not include the acquisition of land and would not affect the Greenways and Trails Program.</p>	<p>Authorizes acquisition of land to create a recreational trails system and to facilitate management of the system.</p>
<i>Chapter 375 Multipurpose Outdoor Recreation; Land Acquisition, Management, and Conservation</i>	<p>The Proposed Action would not affect opportunities for recreation on state lands.</p>	<p>Develops comprehensive multipurpose outdoor recreation plan to document recreational supply and demand, describe current recreational opportunities, estimate need for additional recreational opportunities,</p>

Table B-1. Florida Coastal Management Program Consistency Review, Cont'd

Statute	Consistency	Scope
	<p>There are no known cultural resources located in the vicinity of the project area. However, in the event that additional archaeological resources are inadvertently discovered during construction, 96th CEG/CEVH, Cultural Resources would be notified immediately and further ground-disturbing activities would cease in that area. Identified resources would be managed in compliance with Federal Law and Air Force regulations.</p> <p>Therefore, the Proposed Action would be consistent with the State's policies concerning historical resource management.</p>	<p>and propose means to meet the identified needs.</p> <p>Addresses management and preservation of the state's archaeological and historical resources.</p>
<p>Chapter 267 <i>Historical Resources</i></p>		
<p>Chapter 288 <i>Commercial Development and Capital Improvements</i></p>	<p>The Proposed Action would not affect future business opportunities on state lands, or the promotion of tourism in the region.</p>	<p>Provides the framework for promoting and developing the general business, trade, and tourism components of the state economy.</p>
<p>Chapter 334 <i>Transportation Administration</i></p>	<p>The Proposed Action would not affect transportation.</p>	<p>Addresses the state's policy concerning transportation administration.</p>
<p>Chapter 339 <i>Transportation Finance and Planning</i></p>	<p>The Proposed Action would not affect the finance and planning needs of the state's transportation system.</p>	<p>Addresses the finance and planning needs of the state's transportation system.</p>
<p>Chapter 370 <i>Saltwater Fisheries</i></p>	<p>The Proposed Action would not affect saltwater fisheries.</p>	<p>Addresses management and protection of the state's saltwater fisheries.</p>
<p>Chapter 372 <i>Wildlife</i></p>	<p>No gopher tortoises were found during a site survey conducted in September 2011. An additional survey would be conducted at least 30 days prior to the beginning of construction to ensure no tortoises have moved into the area. If a gopher tortoise burrow cannot be avoided, then the tortoise would be relocated in accordance with the Florida Fish and Wildlife Conservation Commission (FWC) protocols.</p> <p>Therefore the Proposed Action would be consistent with the State's policies concerning the protection of wildlife.</p>	<p>Addresses the management of the wildlife resources of the state.</p>
<p>Chapter 373 <i>Water Resources</i></p>	<p>An Environmental Resource Permit (ERP) from the Northwest Florida Water Management District (NFWFMD) per FAC 62-346 may be required for the proposed action.</p> <p>Applicable permitting requirements would be satisfied in accordance with FAC 62-25 and National Pollutant Discharge Elimination</p>	<p>Addresses the state's policy concerning water resources.</p>

Table B-1. Florida Coastal Management Program Consistency Review, Cont'd

Statute	Consistency	Scope
	<p>System (NPDES). Eglin AFB would submit a notice of intent to use the generic permit for stormwater discharge under the NPDES program prior to project initiation according to Section 403.0885, Florida Statutes (FS). The proposed action would also require coverage under the generic permit for stormwater discharge from construction activities that disturb one or more acres of land (FAC 62-621).</p> <p>Eglin Water Resources (96 CEG/CEVCE) would coordinate all applicable permitting requirements in accordance with the Florida Administrative Code. Therefore, the Proposed Action would be consistent with Florida's statutes and regulations regarding the water resources of the state.</p>	
<p>Chapter 376 <i>Pollutant Discharge Prevention and Removal</i></p>	<p>Construction activities may require the use of hazardous materials, and hazardous waste may be generated. However, the Proposed Action would not increase hazardous material or hazardous waste significantly. Proper handling, use and disposal of hazardous materials and waste, including materials such as sealant and surface treatment substances used for parking apron concrete restoration, are routine at Eglin AFB, personnel will adhere to the present Hazardous Waste Management Plan (HWMP) tracking and reporting requirements.</p> <p>Therefore, the Proposed Action would be consistent with Florida's statutes and regulations regarding the transfer, storage, or transportation of pollutants.</p>	<p>Regulates transfer, storage, and transportation of pollutants, and cleanup of pollutant discharges.</p>
<p>Chapter 377 <i>Energy Resources</i></p>	<p>The Proposed Action would not affect energy resource production, including oil and gas, and/or the transportation of oil and gas.</p>	<p>Addresses regulation, planning, and development of oil and gas resources of the state.</p>
<p>Chapter 380 <i>Land and Water Management</i></p>	<p>The Proposed Action would not affect development of state lands with regional (i.e. more than one county) impacts. The Proposed Action would not include changes to coastal infrastructure such as capacity increases of existing coastal infrastructure, or use of state funds for infrastructure planning, designing or construction.</p>	<p>Establishes land and water management policies to guide and coordinate local decisions relating to growth and development.</p>
<p>Chapter 381 <i>Public Health, General Provisions</i></p>	<p>The Proposed Action would not affect the state's policy concerning the public health system.</p>	<p>Establishes public policy concerning the state's public health system.</p>

Table B-1. Florida Coastal Management Program Consistency Review, Cont'd

Statute	Consistency	Scope
Chapter 388 <i>Mosquito Control</i>	The Proposed Action would not affect mosquito control efforts.	Addresses mosquito control effort in the state.
Chapter 403 <i>Environmental Control</i>	<p>Eglin's Water Resources Section (96 CEG/CEVCE) would coordinate all applicable permits in accordance with the FAC.</p> <p>Air quality impacts from the Proposed Action would be minimal. Eglin AFB would take reasonable precautions to minimize fugitive particulate (dust) emissions during any construction activities in accordance with FAC 62-296.</p> <p>The Proposed Action would not significantly increase hazardous material or hazardous waste generated by Eglin. Eglin AFB personnel will adhere to the present Hazardous Waste Management Plan (HWMP) tracking and reporting requirements.</p> <p>Therefore, the Proposed Action would be consistent with Florida's statutes and regulations regarding water quality, air quality, pollution control, solid waste management, or other environmental control efforts.</p>	Establishes public policy concerning environmental control in the state.
Chapter 582 <i>Soil and Water Conservation</i>	<p>All applicable BMPs, such as erosion and sediment controls and stormwater management measures would be implemented to minimize erosion and storm water run-off, and to regulate sediment control during construction.</p> <p>Therefore, the Proposed Action would be consistent with the Florida's statutes and regulations regarding soil and water conservation efforts.</p>	Provides for the control and prevention of soil erosion.

This page is intentionally blank.